Luminaire
Code 21401013179
Name HELIOS A/01
Measurem.
Code CL092A22D029GP
Name HELIOS A/01

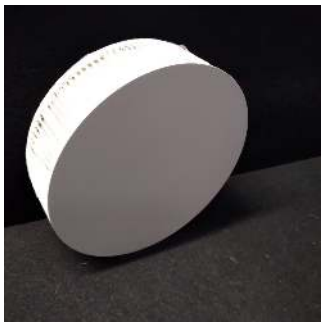
Luminaire Flux	789.52 lm	Luminaire Power	15.20 W	Efficacy	51.94 lm/W	Efficiency	100.00%
Sources Flux	789.52 lm	Maximum value	115.14 cd	Position	C=90.00 G=140.00	CG	Double Symmetrical

Round Luminaire	Diam. 255 mm	Height	80 mm
Round Luminous Area	Diam. 255 mm	Height	80 mm
Horizontal Luminous Area	0.051071 m2	Emitting area on Plane 180°	0.020400 m2
Emitting area on Plane 0°	0.020400 m2	Emitting area on Plane 270°	0.020400 m2
Emitting area on Plane 90°	0.020400 m2	Glare area at 76°	0.032149 m2
Coordinate system	CG	Symmetry Type	Double Symmetrical
Date	13-12-2022	Maximum Gamma Angle	180
Measurement Distance	6.44	Measurement Flux	789.52 lm
Operator	Asselum T2	Rated Voltage	22.30 V
Temperature	24.70 °C	Rated Current	0.70 A
Humidity	31.30 %	Photocell	Czibula Grundmann
Notes	RM22120202		

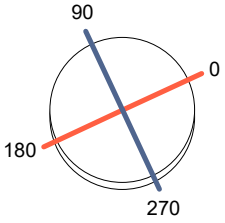
Luminaire Sources

Line	Code	Name	Flux [lm]	Pow. [W]	Q.ty
	MP 2835 LM281B	SPMWHD28MD7WAVMRK	789.52	15.16	1

C.I.E.	12 38 70 45 100	D DIN 5040	C12
F UTE	--	B NBN	BZ 10



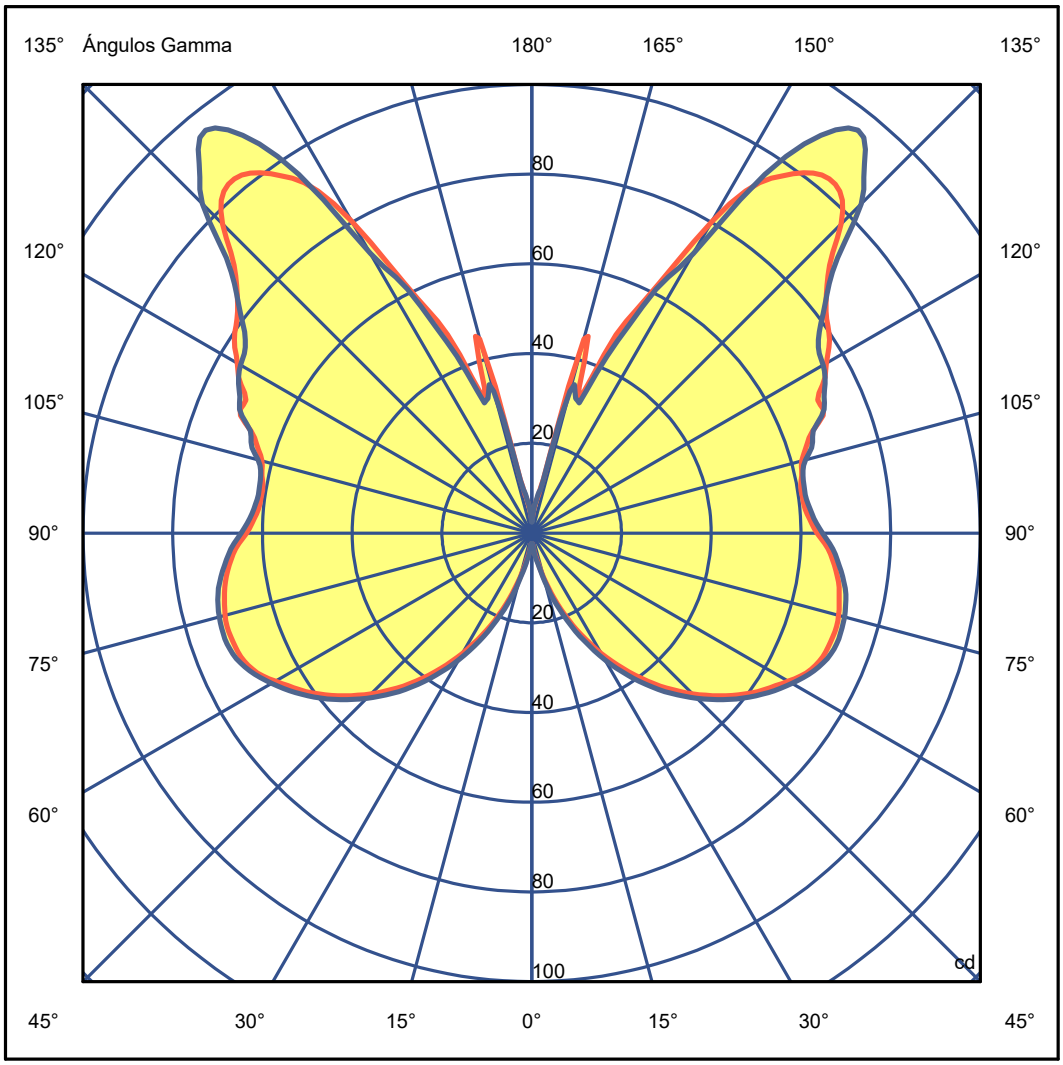
Diam=255mm



Semiplanos C

180.0 — 0.0
270.0 — 90.0

ULOR 55.33 %
DLOR 44.67 %
RN 55.33 %



Luminaire
Code 21401013179
Name HELIOS A/01
Measurem.
Code CL092A22D029GP
Name HELIOS A/01

Luminaire Flux	789.52 lm	Luminaire Power	15.20 W	Efficacy	51.94 lm/W	Efficiency	100.00%
Sources Flux	789.52 lm	Maximum value	115.14 cd	Position	C=90.00 G=140.00	CG	Double Symmetrical

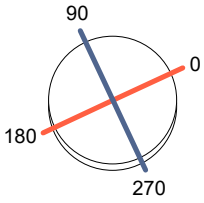
Luminous Intensity Table cd **Table 1/1**

	C 0.00	C 15.00	C 30.00	C 45.00	C 60.00	C 75.00	C 90.00
G 0.0	2.50	2.50	2.50	2.50	2.50	2.50	2.50
G 2.5	2.37	2.96	2.33	2.77	2.34	2.69	2.32
G 5.0	2.91	3.17	2.91	3.24	2.95	3.31	2.94
G 7.5	4.17	4.15	4.26	4.35	4.43	4.52	4.46
G 10.0	5.60	5.66	5.71	5.83	6.04	6.08	6.19
G 12.5	7.51	7.73	7.60	7.80	8.03	8.18	8.20
G 15.0	10.30	10.36	10.34	10.44	10.89	11.04	11.24
G 17.5	13.48	13.45	13.51	13.49	14.20	14.31	14.60
G 20.0	16.75	16.78	16.85	16.82	17.67	17.77	18.06
G 22.5	20.38	20.16	20.31	20.28	21.31	21.41	21.69
G 25.0	23.85	23.71	23.84	23.76	24.89	25.02	25.34
G 27.5	27.36	27.24	27.38	27.37	28.54	28.63	28.95
G 30.0	30.95	30.73	30.95	30.98	32.13	32.32	32.62
G 32.5	34.36	34.20	34.44	34.54	35.72	35.88	36.11
G 35.0	37.81	37.57	37.87	37.97	39.16	39.39	39.51
G 37.5	41.15	40.97	41.19	41.38	42.48	42.79	42.81
G 40.0	44.49	44.22	44.53	44.58	45.71	46.00	46.07
G 42.5	47.61	47.38	47.69	47.78	48.83	49.15	49.08
G 45.0	50.68	50.40	50.74	50.71	51.86	52.15	52.10
G 47.5	53.55	53.34	53.65	53.62	54.76	55.00	54.89
G 50.0	56.41	56.14	56.44	56.36	57.51	57.79	57.63
G 52.5	59.03	58.73	59.04	58.97	60.13	60.40	60.22
G 55.0	61.52	61.22	61.49	61.44	62.53	62.88	62.63
G 57.5	63.69	63.46	63.76	63.63	64.85	65.14	64.89
G 60.0	66.00	65.54	65.89	65.68	66.95	67.21	66.96
G 62.5	68.25	67.59	68.02	67.78	69.03	69.35	68.93
G 65.0	69.77	69.21	69.47	69.35	70.78	71.19	70.56
G 67.5	70.55	70.23	70.46	70.37	71.80	72.19	71.69
G 70.0	70.86	70.70	71.11	70.99	72.32	72.60	72.26
G 72.5	71.03	70.84	71.21	71.19	72.50	72.62	72.34
G 75.0	70.78	70.41	70.95	70.84	72.22	72.46	72.13
G 77.5	70.15	69.80	70.39	70.15	71.44	71.84	71.68
G 80.0	69.52	68.97	69.63	69.39	70.65	71.12	70.90
G 82.5	68.53	67.96	68.71	68.32	69.66	70.14	69.69
G 85.0	67.25	66.79	67.57	67.14	68.43	68.98	68.33
G 87.5	65.72	65.28	66.13	65.49	66.97	67.34	66.81
G 90.0	63.58	63.69	64.09	64.00	64.82	65.81	64.77
G 92.5	62.16	62.29	62.63	62.64	63.30	64.29	63.20
G 95.0	61.19	61.35	61.85	61.55	62.58	63.50	62.20
G 97.5	60.87	60.98	61.39	61.05	62.24	63.04	61.59
G100.0	60.85	61.02	61.45	60.87	61.94	62.97	61.57
G102.5	61.61	61.65	61.84	61.44	62.36	63.22	61.89
G105.0	62.27	63.39	63.02	62.60	63.50	64.09	63.17
G107.5	64.11	64.31	64.71	64.85	64.69	65.34	65.57
G110.0	66.59	64.93	64.55	66.54	66.90	68.45	66.77
G112.5	70.48	65.78	66.08	68.39	69.91	70.37	70.26
G115.0	70.28	66.55	66.94	70.30	70.12	72.48	71.84
G117.5	73.44	65.97	68.25	71.68	72.78	74.48	73.72
G120.0	75.77	66.27	68.51	73.92	73.82	76.65	74.95
G122.5	78.61	67.83	68.96	74.83	74.81	79.81	75.82
G125.0	80.52	69.31	70.75	76.09	76.97	81.85	78.17
G127.5	82.62	72.04	74.50	79.27	78.59	85.10	82.12
G130.0	85.90	74.33	79.08	83.82	82.88	89.81	86.56
G132.5	90.41	80.05	84.33	90.61	85.84	91.35	93.42
G135.0	97.43	83.34	90.95	95.19	89.26	95.72	103.82
G137.5	102.08	86.94	95.73	101.09	94.09	97.75	109.57
G140.0	103.09	87.59	98.52	102.10	95.95	96.73	115.14
G142.5	101.32	84.88	99.07	104.56	90.19	98.34	113.69
G145.0	97.21	84.29	93.49	98.27	92.72	85.03	105.89
G147.5	91.71	74.67	92.96	92.26	81.06	79.64	91.74
G150.0	80.28	67.52	83.35	79.91	77.45	68.50	72.00
G152.5	65.06	57.63	70.14	67.29	67.87	67.24	63.03
G155.0	54.79	53.33	59.02	56.55	63.78	59.59	51.12
G157.5	45.70	45.44	52.63	47.88	54.02	44.78	40.74
G160.0	32.78	40.51	35.19	40.60	33.99	35.94	30.93
G162.5	36.71	39.50	32.65	41.51	32.26	32.81	31.75
G165.0	44.87	25.18	49.04	29.74	43.81	25.74	32.72
G167.5	13.12	22.30	19.72	21.61	20.17	15.75	14.23
G170.0	8.70	10.27	8.97	9.56	9.04	9.88	9.40
G172.5	6.90	7.45	6.60	7.06	6.45	7.50	7.21
G175.0	5.59	5.29	5.76	5.10	5.50	5.25	5.68
G177.5	3.61	3.81	3.00	3.10	2.89	3.10	2.69
G180.0	3.29	3.29	3.29	3.29	3.29	3.29	3.29

Luminaire
Code 21401013179
Name HELIOS A/01
Measurem.
Code CL092A22D029GP
Name HELIOS A/01

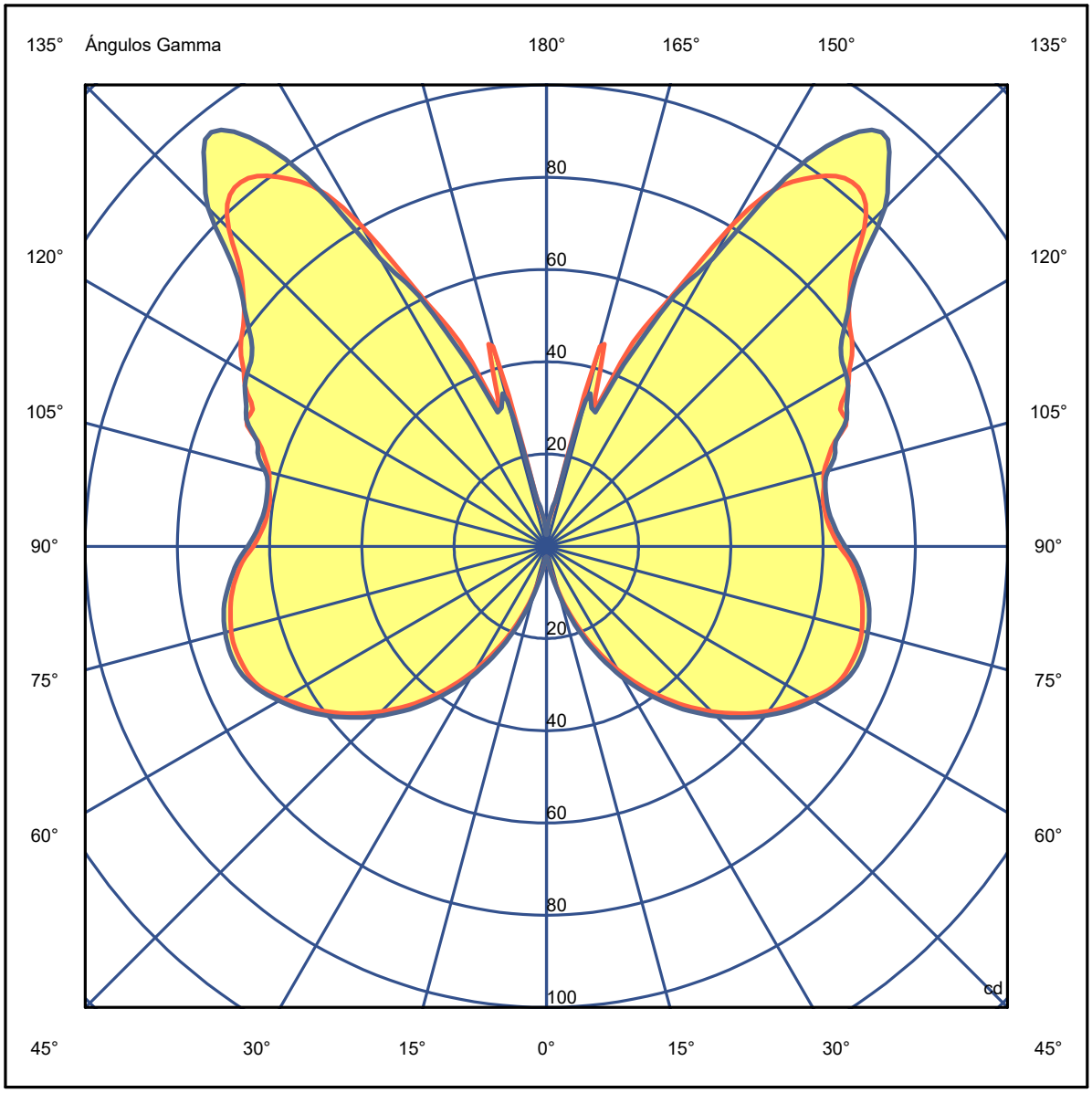
Luminaire Flux	789.52 lm	Luminaire Power	15.20 W	Efficacy	51.94 lm/W	Efficiency	100.00%
Sources Flux	789.52 lm	Maximum value	115.14 cd	Position	C=90.00 G=140.00	CG	Double Symmetrical

Diam=255mm



Semiplanos C

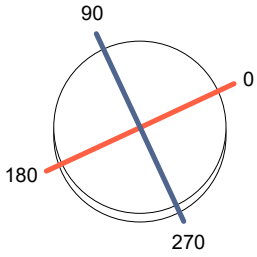
180.0 0.0
270.0 90.0



Luminaire
Code 21401013179
Name HELIOS A/01
Measurem.
Code CL092A22D029GP
Name HELIOS A/01

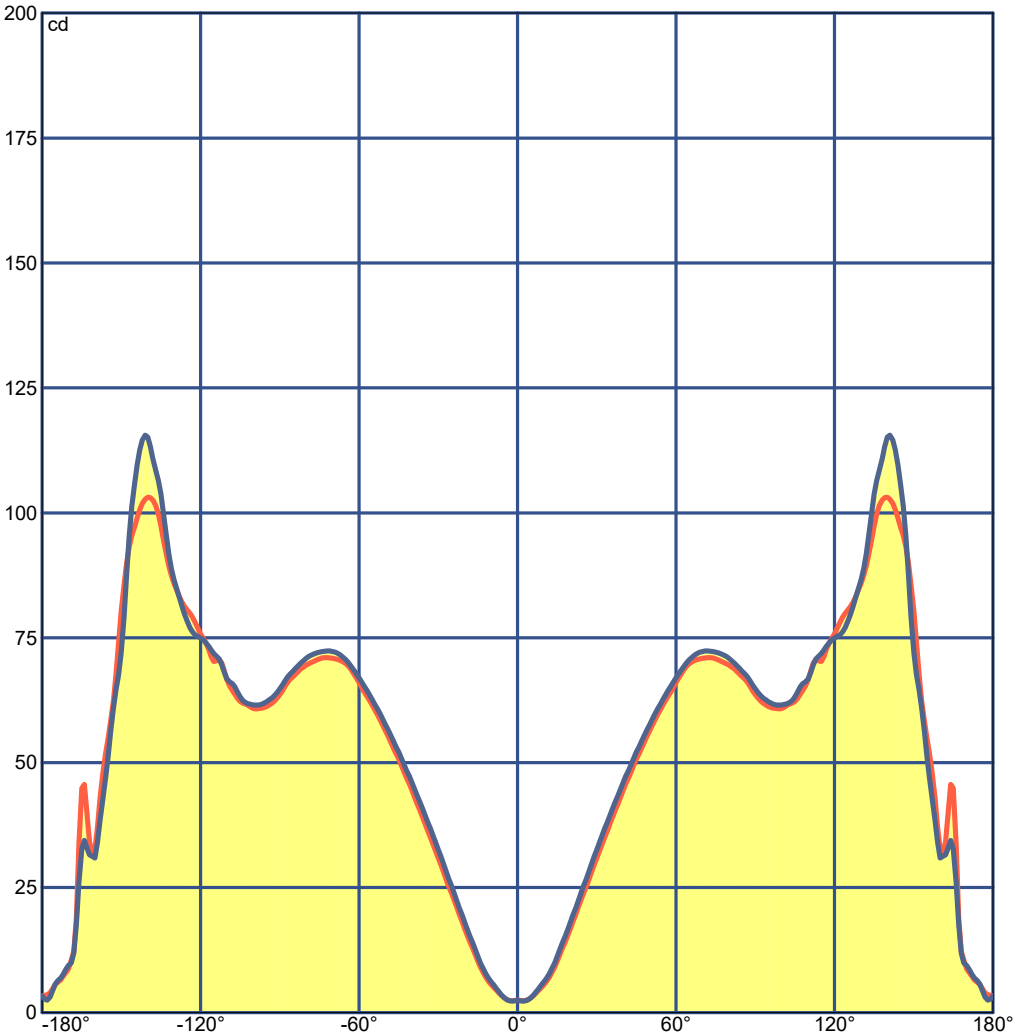
Luminaire Flux	789.52 lm	Luminaire Power	15.20 W	Efficacy	51.94 lm/W	Efficiency	100.00%
Sources Flux	789.52 lm	Maximum value	115.14 cd	Position	C=90.00 G=140.00	CG	Double Symmetrical

Diam=255mm



Semiplanos C





Luminaire
Code 21401013179
Name HELIOS A/01
Measurem.
Code CL092A22D029GP
Name HELIOS A/01

Luminaire Flux	789.52 lm	Luminaire Power	15.20 W	Efficacy	51.94 lm/W	Efficiency	100.00%
Sources Flux	789.52 lm	Maximum value	115.14 cd	Position	C=90.00 G=140.00	CG	Double Symmetrical

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	10.1	11.0	11.0	12.0	13.3	10.2	11.2	11.1	12.1	13.4
x=2H y=3H	13.3	14.1	14.2	15.1	16.4	13.4	14.3	14.4	15.3	16.6
x=2H y=4H	14.9	15.7	15.8	16.7	18.0	15.0	15.8	16.0	16.8	18.2
x=2H y=6H	16.4	17.2	17.4	18.2	19.5	16.6	17.3	17.6	18.3	19.7
x=2H y=8H	17.1	17.9	18.1	18.9	20.2	17.3	18.0	18.3	19.1	20.4
x=2H y=12H	17.9	18.6	18.9	19.6	20.9	18.0	18.7	19.0	19.7	21.1
x=4H y=2H	11.1	12.0	12.1	13.0	14.3	11.3	12.1	12.2	13.1	14.4
x=4H y=3H	14.4	15.1	15.4	16.1	17.5	14.6	15.3	15.6	16.3	17.6
x=4H y=4H	16.1	16.8	17.1	17.8	19.2	16.3	16.9	17.3	17.9	19.3
x=4H y=6H	17.8	18.4	18.8	19.4	20.8	18.0	18.5	19.0	19.6	20.9
x=4H y=8H	18.6	19.1	19.6	20.2	21.6	18.8	19.3	19.8	20.3	21.7
x=4H y=12H	19.4	19.9	20.4	20.9	22.4	19.6	20.1	20.6	21.1	22.5
x=8H y=4H	16.7	17.3	17.8	18.3	19.7	16.9	17.4	17.9	18.4	19.8
x=8H y=6H	18.6	19.1	19.7	20.1	21.6	18.8	19.2	19.8	20.3	21.7
x=8H y=8H	19.6	20.0	20.7	21.1	22.5	19.8	20.1	20.8	21.2	22.6
x=8H y=12H	20.6	20.9	21.6	22.0	23.4	20.7	21.1	21.8	22.2	23.6
x=12H y=4H	17.9	18.4	18.9	19.4	20.8	17.9	18.4	19.0	19.5	20.9
x=12H y=6H	19.5	19.8	20.5	20.9	22.3	19.5	19.9	20.6	21.0	22.4
x=12H y=8H	20.4	20.7	21.4	21.8	23.2	20.4	20.8	21.5	21.9	23.3

Luminaire
Code 21401013179
Name HELIOS A/01
Measurem.
Code CL092A22D029GP
Name HELIOS A/01

Luminaire Flux	789.52 lm	Luminaire Power	15.20 W	Efficacy	51.94 lm/W	Efficiency	100.00%
Sources Flux	789.52 lm	Maximum value	115.14 cd	Position	C=90.00 G=140.00	CG	Double Symmetrical

Flujo Total=789.52 Flujo Luminaria=789.52

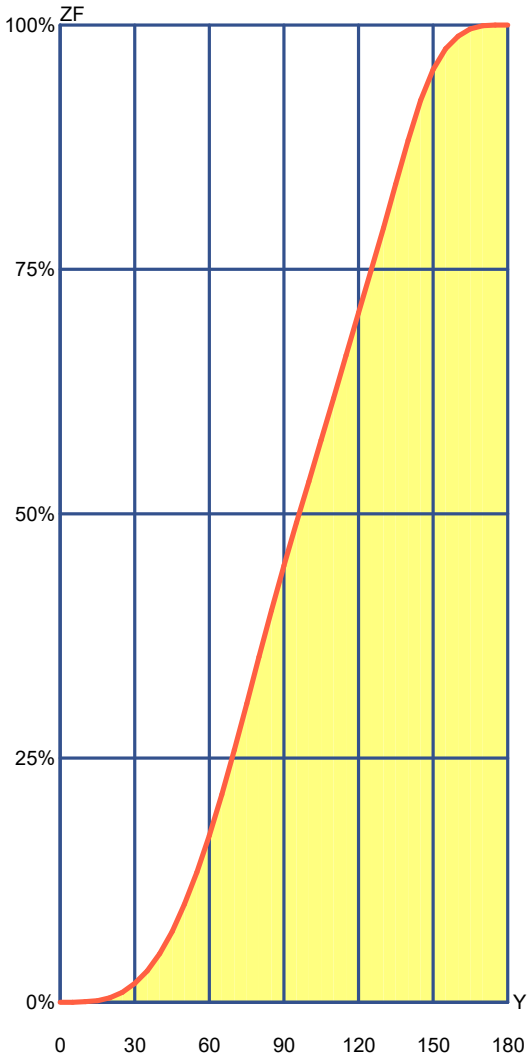
RI	0.60	0.80	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	10.00	20.00
DRR	0.07	0.12	0.17	0.23	0.28	0.37	0.43	0.49	0.57	0.62	0.76	0.86
RC	-	-	-	-	-	-	-	-	10	10	10	10

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)	0	5	19	50	100	171	258	353	447	533	618	706	792	882	955	989	999	1000

Códigos de Flujo C.I.E.
12 38 70 45 100

C.I.E.	-/-/-/-/-/-/-/10/10/10/10	LOR	100.00000 %
D DIN 5040	C12	ULOR	55.32708 %
F UTE	--	DLOR	44.67292 %
B NBN	BZ 10	UFF	55.32708 %
RN	55.32708 %	DFF	44.67292 %
BLF	1.0	FFR	123.84923 %



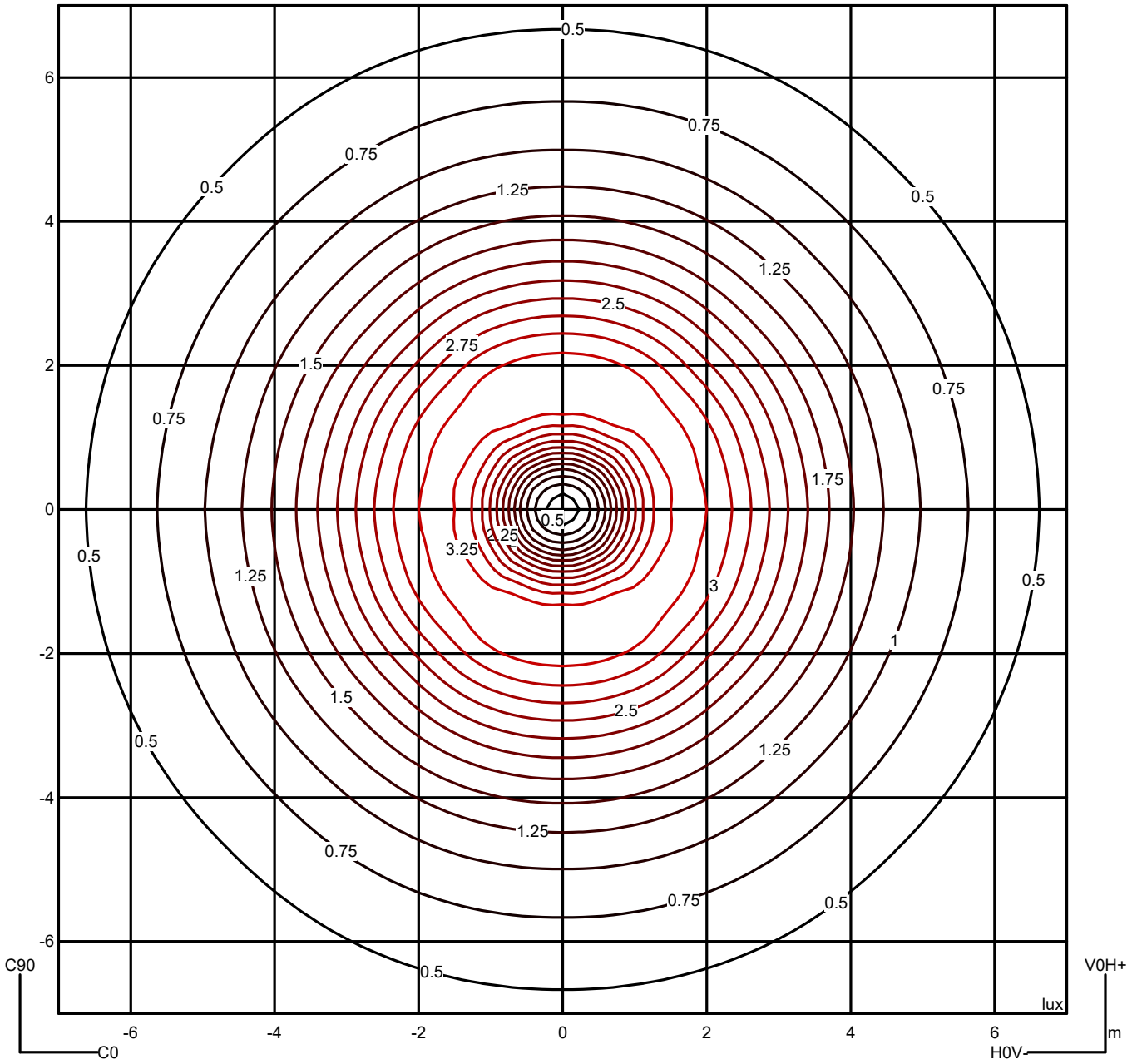
Flujo Zonal				
Gamma °	Flujo	Suma lm	Flujo [%]	Suma [%]
0°	0.00	0.00	0.00%	0.00 %
5°	0.08	0.08	0.01 %	0.01 %
10°	0.41	0.49	0.04 %	0.05 %
15°	1.23	1.72	0.12 %	0.17 %
20°	2.92	4.64	0.29 %	0.46 %
25°	5.54	10.18	0.55 %	1.02 %
30°	8.96	19.15	0.90 %	1.91 %
35°	13.07	32.22	1.31 %	3.22 %
40°	17.67	49.89	1.77 %	4.99 %
45°	22.61	72.50	2.26 %	7.25 %
50°	27.69	100.19	2.77 %	10.02 %
55°	32.75	132.95	3.28 %	13.29 %
60°	37.57	170.52	3.76 %	17.05 %
65°	42.05	212.57	4.21 %	21.26 %
70°	45.48	258.05	4.55 %	25.81 %
75°	47.39	305.44	4.74 %	30.54 %
80°	47.94	353.38	4.79 %	35.34 %
85°	47.45	400.83	4.74 %	40.08 %
90°	45.90	446.73	4.59 %	44.67 %
95°	43.78	490.51	4.38 %	49.05 %
100°	42.50	533.01	4.25 %	53.30 %
105°	42.17	575.18	4.22 %	57.52 %
110°	42.89	618.07	4.29 %	61.81 %
115°	43.75	661.82	4.38 %	66.18 %
120°	43.76	705.58	4.38 %	70.56 %
125°	43.32	748.90	4.33 %	74.89 %
130°	43.46	792.35	4.35 %	79.24 %
135°	44.75	837.10	4.48 %	83.71 %
140°	45.09	882.19	4.51 %	88.22 %
145°	40.77	922.97	4.08 %	92.30 %
150°	31.65	954.62	3.17 %	95.46 %
155°	21.25	975.87	2.13 %	97.59 %
160°	12.69	988.56	1.27 %	98.86 %
165°	7.45	996.01	0.75 %	99.60 %
170°	3.20	999.21	0.32 %	99.92 %
175°	0.67	999.88	0.07 %	99.99 %
180°	0.12	1000.00	0.01 %	100.00 %

Luminaire
Code 21401013179
Name HELIOS A/01
Measurem.
Code CL092A22D029GP
Name HELIOS A/01

Luminaire Flux	789.52 lm	Luminaire Power	15.20 W	Efficacy	51.94 lm/W	Efficiency	100.00%
Sources Flux	789.52 lm	Maximum value	115.14 cd	Position	C=90.00 G=140.00	CG	Double Symmetrical

Isolux (Floor)

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



Luminaire
Code 21401013179
Name HELIOS A/01
Measurem.
Code CL092A22D029GP
Name HELIOS A/01

Luminaire Flux	789.52 lm	Luminaire Power	15.20 W	Efficacy	51.94 lm/W	Efficiency	100.00%
Sources Flux	789.52 lm	Maximum value	115.14 cd	Position	C=90.00 G=140.00	CG	Double Symmetrical

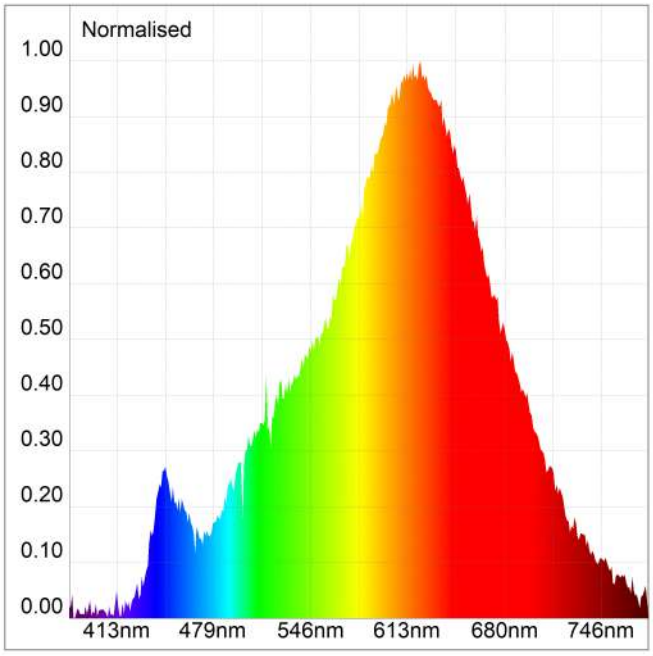
Spectral Data

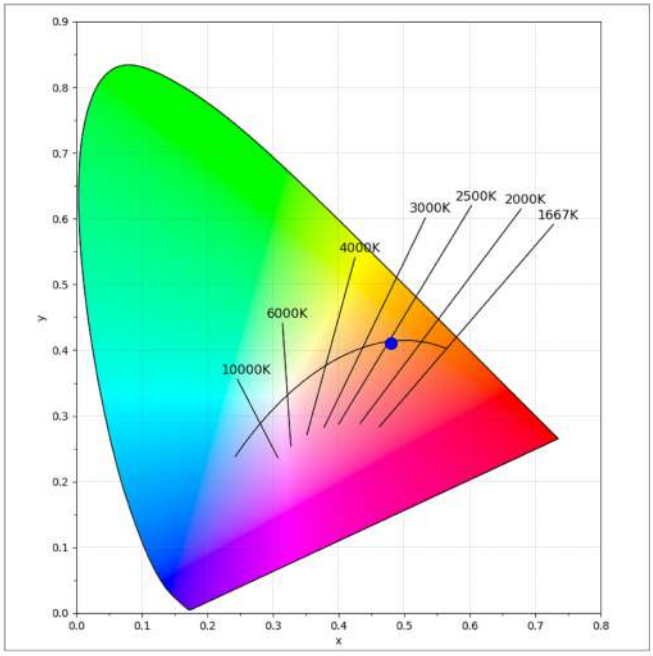
CIE1931	x =0.480481	y =0.410041	Color rendering index (CRI)	CRI8(Ra) 91.4		CRI15(Rav) 89.3			
CIE1960	u =0.276158	v =0.353508	Color Rendering Components	R 1: 92.2	R 2: 98.0	R 3: 96.6	R 4: 91.2	R 5: 92.8	
CIE1976	u'=0.276158	v'=0.530261		R 6: 97.0	R 7: 87.7	R 8: 75.5	R 9: 50.8	R10: 95.0	
D(u,v)	0.00140		S/P ratio = 1.16678	R11: 93.4	R12: 89.1	R13: 94.0	R14: 99.2	R15: 86.6	
			CCT = 2432 K	M/P Well = 0.42882					

Spectral Distribution

l(nm)	Normalised	l(nm)	Normalised	l(nm)	Normalised
380.0	0.017121	386.0	0.012424	392.0	0.006465
398.0	0.007424	404.0	0.012626	410.0	0.015354
416.0	0.013258	422.0	0.022929	428.0	0.020152
434.0	0.051010	440.0	0.070707	446.0	0.158586
452.0	0.263131	458.0	0.208586	464.0	0.189394
470.0	0.189394	476.0	0.154545	482.0	0.156566
488.0	0.173232	494.0	0.218687	500.0	0.227273
506.0	0.180808	512.0	0.309091	518.0	0.350505
524.0	0.345455	530.0	0.381818	536.0	0.402525
542.0	0.428788	548.0	0.472727	554.0	0.480303
560.0	0.510101	566.0	0.535354	572.0	0.595960
578.0	0.646465	584.0	0.717172	590.0	0.792929
596.0	0.833333	602.0	0.888889	608.0	0.919192
614.0	0.959596	620.0	0.964646	626.0	1.000000
632.0	0.944444	638.0	0.919192	644.0	0.863636
650.0	0.838384	656.0	0.772727	662.0	0.712121
668.0	0.666667	674.0	0.575758	680.0	0.510101
686.0	0.482828	692.0	0.432323	698.0	0.404040
704.0	0.332323	710.0	0.282828	716.0	0.259596
722.0	0.217677	728.0	0.165152	734.0	0.151515
740.0	0.123232	746.0	0.096970	752.0	0.098990
758.0	0.076768	764.0	0.077273	770.0	0.049848
776.0	0.040909	782.0	0.034798	788.0	0.034798

Spectrum Graph

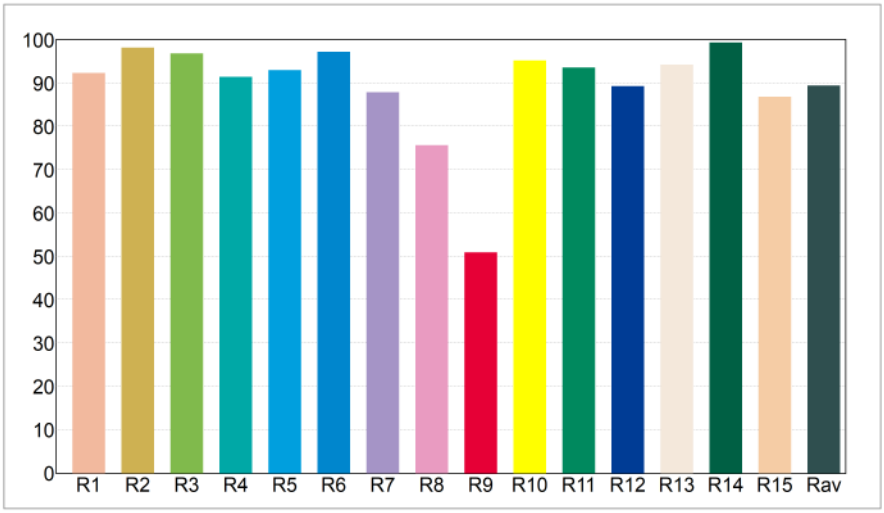


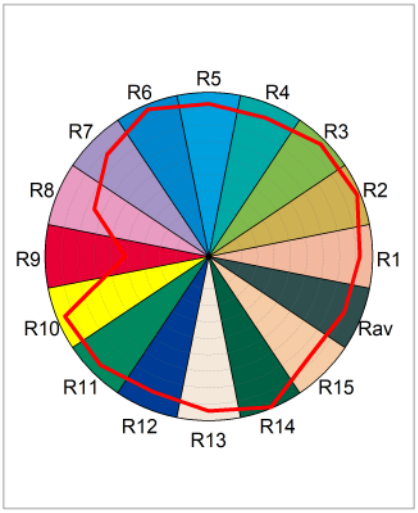


Luminaire
Code 21401013179
Name HELIOS A/01
Measurem.
Code CL092A22D029GP
Name HELIOS A/01

Luminaire Flux	789.52 lm	Luminaire Power	15.20 W	Efficacy	51.94 lm/W	Efficiency	100.00%
Sources Flux	789.52 lm	Maximum value	115.14 cd	Position	C=90.00 G=140.00	CG	Double Symmetrical

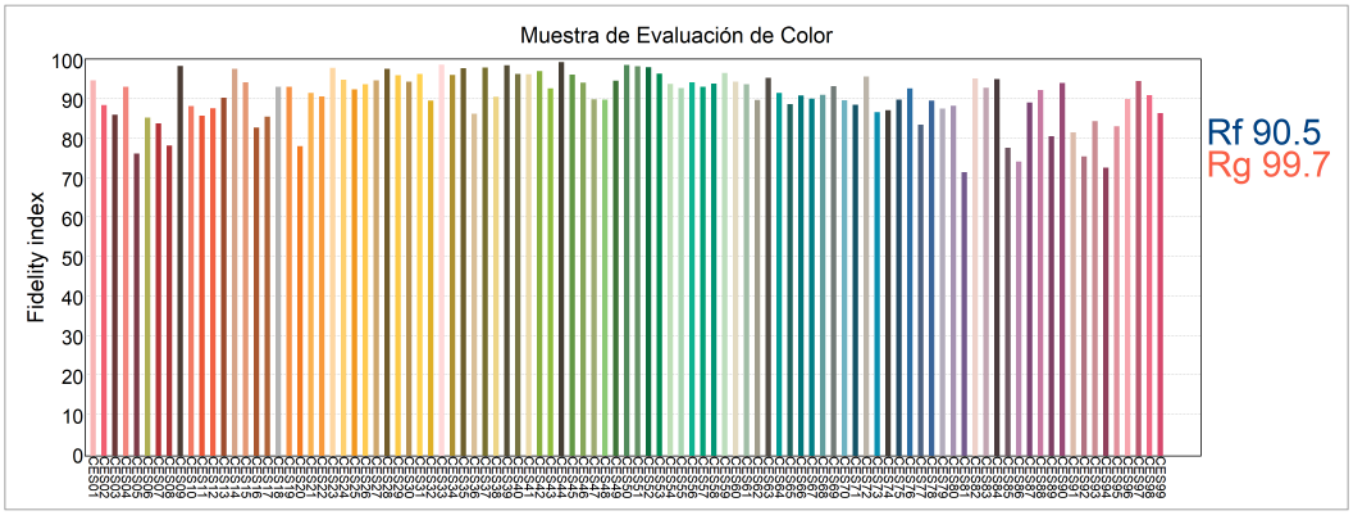
CRI Graphs



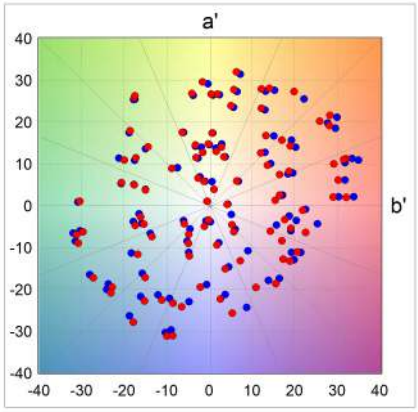


Luminaire
Code 21401013179
Name HELIOS A/01
Measurem.
Code CL092A22D029GP
Name HELIOS A/01

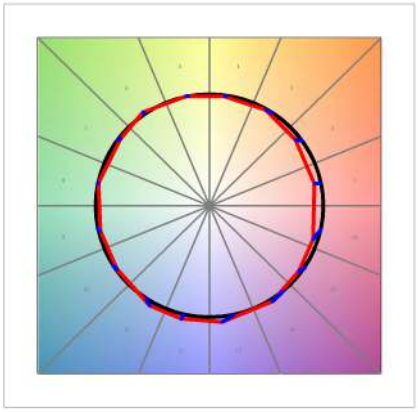
Luminaire Flux	789.52 lm	Luminaire Power	15.20 W	Efficacy	51.94 lm/W	Efficiency	100.00%
Sources Flux	789.52 lm	Maximum value	115.14 cd	Position	C=90.00 G=140.00	CG	Double Symmetrical



Chromatic Coordinates (a', b') 99 CES



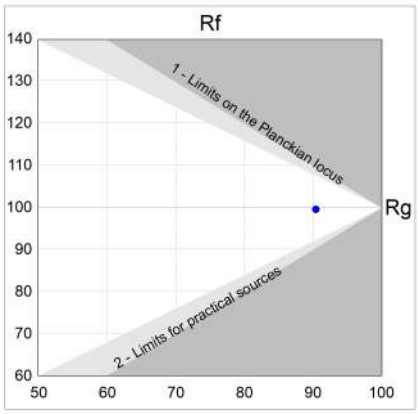
Color Vector Graphic



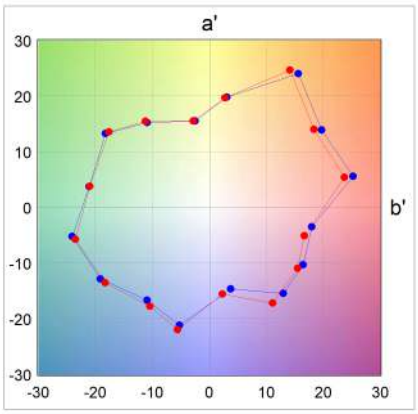
Color Distorsion Graphic



Rg vs Rf Plot



Gamut Polygon



Bin Deviation

