

Luminaria

Código A718-001
Nombre TUBO LED CRISTAL 1,5MT

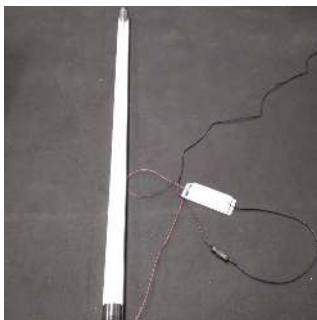
Ensayo

Código CL041A22F004G
Nombre TUBO LED CRISTAL 1,5MT

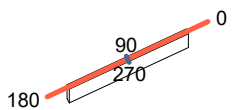
Flujo Luminaria	2258.15 lm	Potencia Luminaria	33.69 W	Eficacia	67.03 lm/W	Eficiencia	100.00%	
Flujo Fuentes de luz	2258.15 lm	Valor Máximo	874.53 cd	Posición	C=0.00 G=0.00	CG	Bisimétrico	
Luminaria Rectangular	Longit.	60 mm	Longit.	60 mm	Anchura	1542 mm	Altura	60 mm
Área Luminosa Rectangular	Longit.	60 mm			Anchura	1400 mm	Altura	30 mm
Área Luminosa Horizontal	0.084000 m2				Área Emisión sobre Pl. 180°		0.001800 m2	
Área Emisión sobre Pl. 0°	0.001800 m2				Área Emisión sobre Pl. 270°		0.042000 m2	
Área Emisión sobre Pl. 90°	0.042000 m2				Área de deslumbramiento a 76°		0.022068 m2	
Sist. de Coordén.	CG			Tipo de Simetría		Bisimétrico		
Fecha	17-10-2022			Máximo Ángulo Gamma		180		
Distancia de Ensayo	6.44			Flujo de Ensayo		2258.15 lm		
Operador	Asselum T2			Tensión Nominal		230.09 V		
Temperatura	25.20 °C			Corriente Nominal		0.15 A		
Humedad	61.60 %			Fotocélula		Czibula Grundmann		
Notas	RM22101701							

Fuentes de luz de la Luminaria

Familia	Código LED	Nombre LED 24V	Flujo [lm]	Pot. [W]	Cant.
C.I.E.	51 81 95 97 100		2258.15	33.69	1
F UTE	0.97 D + 0.03 T				
		D DIN 5040 B NBN	A41 BZ 4		



60mm x 1542mm

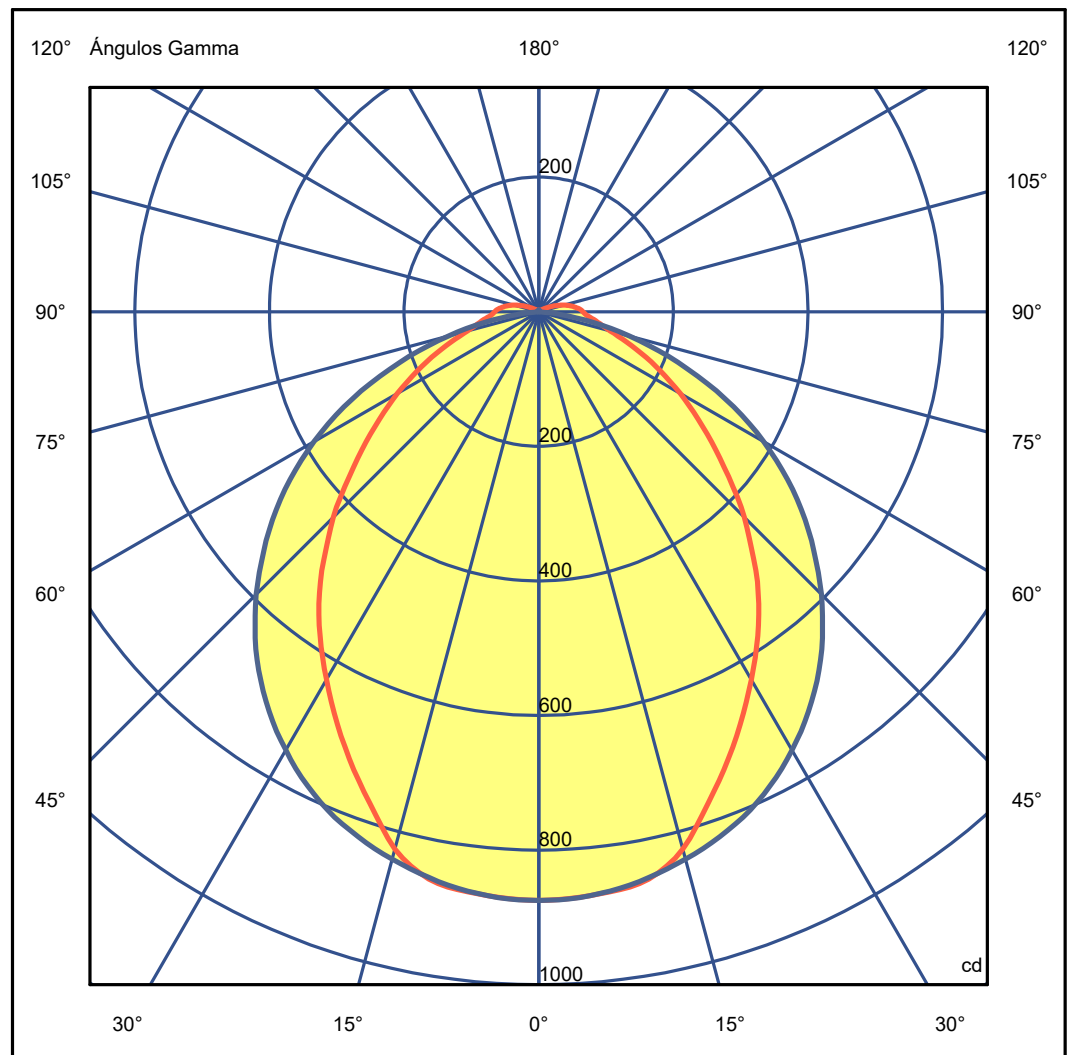
**Semiplanos C**

180.0 — 0.0
270.0 — 90.0

ULOR 3.23 %

DLOR 96.77 %

RN 3.23 %



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Flujo Fuentes de luz	2258.15 lm	Valor Máximo	874.53 cd	Posición	C=0.00 G=0.00	CG Bisimétrico	

Tabla de Intensidad Luminosa cd Tabla 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	874.53	874.53	874.53	874.53	874.53	874.53	874.53
G 2.5	873.36	873.41	873.52	873.62	873.70	873.83	873.91
G 5.0	870.96	871.06	870.74	870.58	870.60	870.70	870.82
G 7.5	867.40	864.75	865.65	866.49	866.20	866.29	866.24
G 10.0	862.73	842.24	847.62	856.50	860.81	860.02	859.46
G 12.5	848.88	826.96	828.46	839.26	851.91	852.55	851.09
G 15.0	826.33	808.85	811.56	820.14	838.37	843.48	841.88
G 17.5	792.66	784.01	793.87	801.82	819.44	831.79	831.94
G 20.0	759.20	754.16	769.97	783.56	799.80	817.77	819.73
G 22.5	727.52	725.03	742.35	763.90	779.92	799.98	807.01
G 25.0	695.16	695.40	713.97	740.10	758.93	781.04	790.62
G 27.5	663.18	666.15	684.54	712.95	737.47	760.78	772.78
G 30.0	631.19	636.72	656.91	686.18	715.59	739.23	752.01
G 32.5	600.08	607.22	628.00	656.01	688.67	715.93	730.57
G 35.0	568.74	576.99	597.95	625.82	658.59	691.54	706.72
G 37.5	536.25	543.39	566.61	596.65	628.47	666.60	681.25
G 40.0	501.53	508.75	532.78	565.79	599.19	639.73	654.09
G 42.5	465.08	475.29	499.48	533.46	568.18	611.89	623.68
G 45.0	432.06	442.76	464.90	500.08	534.62	579.64	593.78
G 47.5	395.45	407.62	430.64	465.82	501.07	545.96	560.90
G 50.0	359.53	371.24	395.23	431.42	466.89	510.89	528.80
G 52.5	327.66	334.04	359.23	395.87	432.78	475.07	495.17
G 55.0	297.37	301.85	322.48	359.06	397.06	438.89	460.34
G 57.5	268.95	272.28	285.73	322.49	361.07	402.89	423.67
G 60.0	242.83	244.00	251.69	285.10	323.60	364.35	385.46
G 62.5	216.34	217.03	222.23	247.87	286.11	328.68	346.65
G 65.0	192.16	192.48	195.71	212.93	248.28	289.08	305.58
G 67.5	168.32	168.61	169.77	183.32	212.35	248.84	263.37
G 70.0	146.69	146.45	146.61	156.45	175.83	210.63	219.92
G 72.5	126.67	126.51	125.58	131.76	142.80	172.36	179.71
G 75.0	109.81	109.88	107.40	109.96	115.09	135.94	139.62
G 77.5	97.77	96.65	93.38	91.55	91.94	102.42	102.99
G 80.0	89.02	87.25	81.77	77.26	72.56	73.18	68.44
G 82.5	81.07	79.17	73.09	66.09	57.92	50.78	38.88
G 85.0	73.80	72.62	67.17	58.32	46.84	35.30	16.14
G 87.5	68.90	67.45	61.65	52.39	40.17	24.41	3.60
G 90.0	65.73	63.29	56.25	46.76	33.79	17.48	1.25
G 92.5	62.51	59.63	51.93	41.68	28.48	12.36	1.03
G 95.0	58.69	55.57	47.44	36.97	23.61	8.86	1.03
G 97.5	54.35	51.02	42.61	32.14	19.07	6.59	1.08
G100.0	49.28	46.01	37.80	27.31	15.03	4.85	1.38
G102.5	43.92	40.77	32.78	22.79	11.67	3.55	1.48
G105.0	38.38	35.40	27.99	18.59	8.92	2.58	1.58
G107.5	32.59	30.02	23.18	14.74	6.75	2.08	1.47
G110.0	27.10	24.93	18.87	11.42	5.39	1.87	1.61
G112.5	21.96	20.14	15.01	8.78	4.07	1.70	1.71
G115.0	17.30	15.77	11.51	6.62	3.00	1.63	1.73
G117.5	12.85	11.97	8.80	5.24	2.45	1.72	1.71
G120.0	9.37	8.86	6.72	4.11	2.17	1.76	1.70
G122.5	6.44	6.53	5.16	3.21	1.95	1.79	1.69
G125.0	4.50	4.82	3.99	2.70	1.90	1.81	1.71
G127.5	3.28	3.54	3.01	2.24	1.91	1.81	1.72
G130.0	2.67	2.67	2.45	2.03	1.91	1.83	1.78
G132.5	2.37	2.31	2.15	1.99	1.91	1.84	1.80
G135.0	2.35	2.25	2.09	1.99	1.92	1.86	1.84
G137.5	2.32	2.21	2.07	1.99	1.94	1.89	1.86
G140.0	2.24	2.18	2.05	2.00	1.96	1.91	1.87
G142.5	2.18	2.12	2.03	2.01	1.98	1.95	1.90
G145.0	2.17	2.10	2.03	2.02	2.01	1.96	1.93
G147.5	2.17	2.10	2.05	2.04	2.02	1.98	1.94
G150.0	2.17	2.10	2.07	2.06	2.04	2.02	1.98
G152.5	2.17	2.11	2.09	2.07	2.06	2.04	2.00
G155.0	2.17	2.12	2.10	2.10	2.09	2.07	2.04
G157.5	2.21	2.14	2.13	2.13	2.12	2.09	2.07
G160.0	2.22	2.17	2.16	2.15	2.14	2.12	2.10
G162.5	2.22	2.17	2.17	2.18	2.17	2.14	2.11
G165.0	2.22	2.17	2.19	2.21	2.19	2.16	2.14
G167.5	2.20	2.21	2.21	2.22	2.21	2.18	2.17
G170.0	2.27	2.24	2.22	2.23	2.22	2.20	2.19
G172.5	2.24	2.24	2.22	2.22	2.23	2.22	2.23
G175.0	2.22	2.22	2.22	2.23	2.23	2.24	2.22
G177.5	2.24	2.24	2.24	2.24	2.24	2.24	2.24
G180.0	2.26	2.26	2.26	2.26	2.26	2.26	2.26

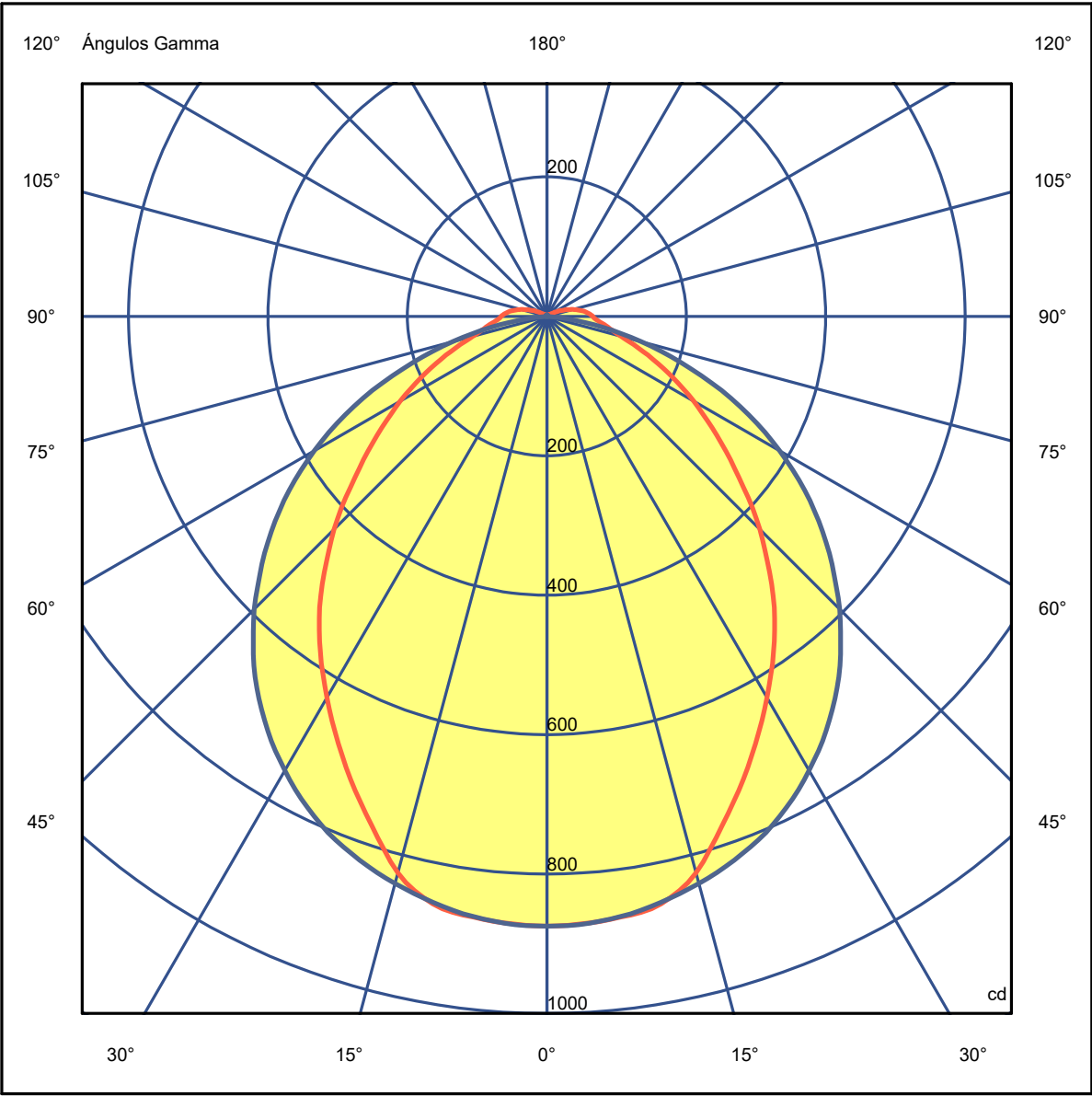
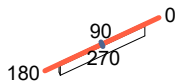
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60mm x 1542mm

Semiplanos C

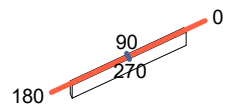
180.0 0.0
270.0 90.0



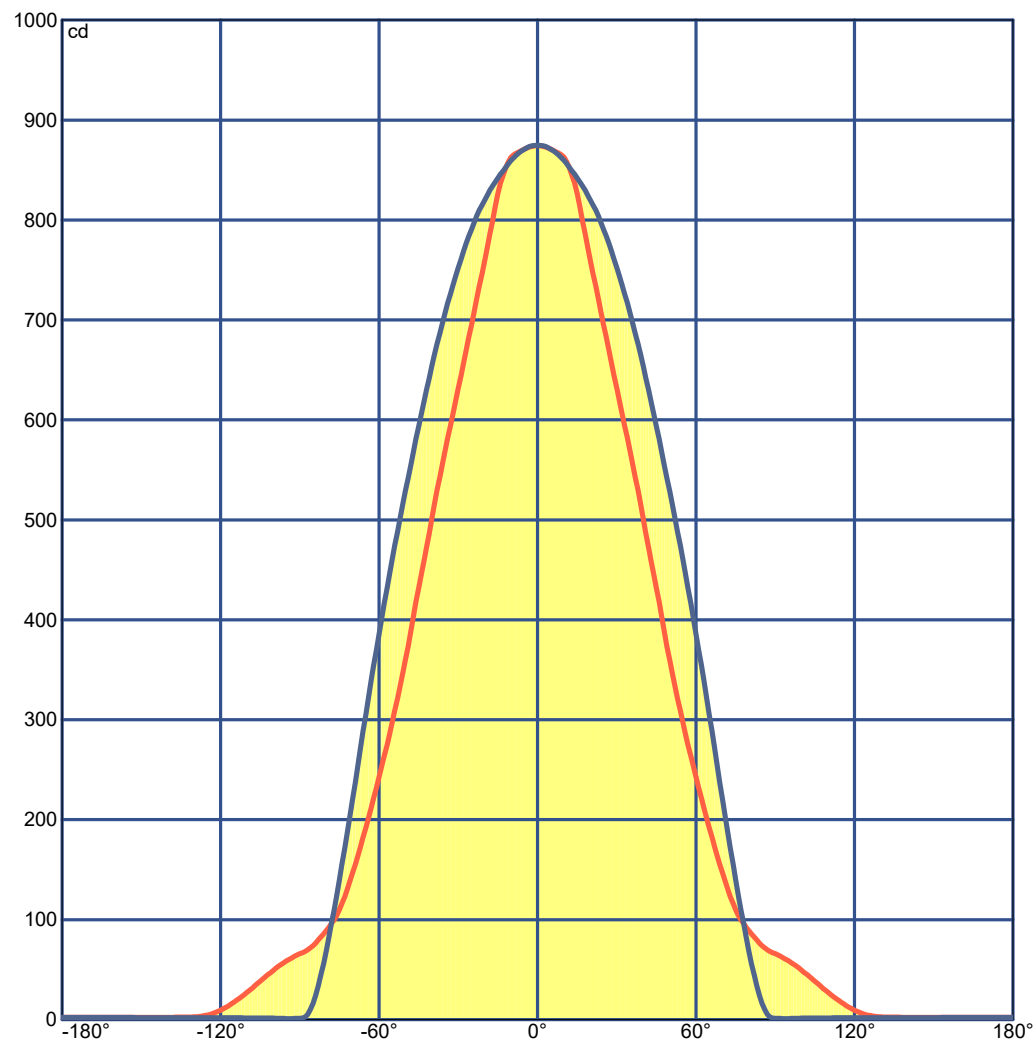
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UGR
 S = 0.250

Reflectancias										
Techo/Cavidad	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Paredes	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
PDT	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Dimensiones del Local						Vista Longitudinal				
x=2H y=2H	17.5	18.7	17.8	19.0	19.3	18.5	19.7	18.8	20.0	20.3
x=2H y=3H	18.7	19.8	19.0	20.1	20.4	19.6	20.7	20.0	21.1	21.4
x=2H y=4H	19.2	20.3	19.6	20.6	21.0	20.0	21.0	20.3	21.3	21.7
x=2H y=6H	19.8	20.8	20.2	21.2	21.6	20.1	21.1	20.5	21.4	21.8
x=2H y=8H	20.2	21.1	20.6	21.5	21.9	20.1	21.0	20.5	21.4	21.8
x=2H y=12H	20.6	21.5	21.1	21.9	22.3	20.1	21.0	20.5	21.4	21.7
x=4H y=2H	17.9	19.0	18.3	19.3	19.7	18.8	19.8	19.2	20.2	20.5
x=4H y=3H	19.3	20.2	19.7	20.5	20.9	20.1	21.0	20.5	21.3	21.7
x=4H y=4H	19.9	20.7	20.4	21.1	21.6	20.5	21.3	20.9	21.7	22.1
x=4H y=6H	20.7	21.4	21.1	21.8	22.3	20.7	21.4	21.2	21.8	22.3
x=4H y=8H	21.1	21.7	21.6	22.2	22.7	20.7	21.4	21.2	21.8	22.3
x=4H y=12H	21.6	22.2	22.1	22.7	23.2	20.7	21.3	21.2	21.8	22.3
x=8H y=4H	20.1	20.7	20.5	21.1	21.6	20.6	21.2	21.1	21.7	22.1
x=8H y=6H	20.9	21.4	21.4	21.9	22.4	20.9	21.4	21.4	21.9	22.4
x=8H y=8H	21.5	21.9	22.0	22.4	23.0	21.0	21.4	21.5	21.9	22.5
x=8H y=12H	22.1	22.5	22.7	23.1	23.6	21.0	21.4	21.5	21.9	22.5
x=12H y=4H	20.3	20.9	20.8	21.3	21.8	20.9	21.5	21.4	22.0	22.5
x=12H y=6H	21.1	21.6	21.6	22.1	22.6	21.2	21.7	21.8	22.2	22.8
x=12H y=8H	21.7	22.1	22.2	22.6	23.2	21.3	21.7	21.9	22.3	22.8

Luminaria

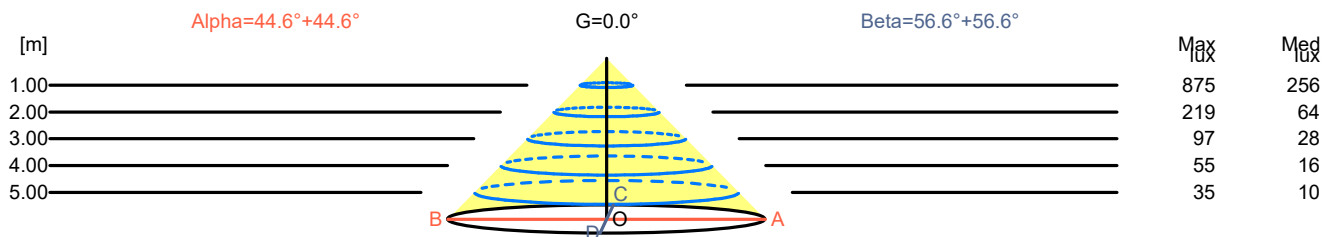
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Flujo Fuentes de luz	2258.15 lm	Valor Máximo	874.53 cd	Posición	C=0.00 G=0.00	CG Bisimétrico	

Apertura a 50.00 % de Max Intensidad

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	0.99	1.97	2.96	3.95	4.93	OC	1.52	3.03	4.55	6.06	7.58
OB	0.99	1.97	2.96	3.95	4.93	OD	1.52	3.03	4.55	6.06	7.58

	0	5	15	25	35	45	55	65	75	85
OA	874.53	870.96	826.33	695.16	568.74	432.06	297.37	192.16	109.81	73.80
OB	874.53	870.96	826.33	695.16	568.74	432.06	297.37	192.16	109.81	73.80
OC	874.53	870.82	841.88	790.62	706.72	593.78	460.34	305.58	139.62	16.14
OD	874.53	870.82	841.88	790.62	706.72	593.78	460.34	305.58	139.62	16.14



H[m]	D[m]	Max lux	Med lux	Alpha=44.6°+44.6°	G=0.0
1.00	1.97	875	256		
2.00	3.95	219	64		
3.00	5.92	97	28		
4.00	7.89	55	16		
5.00	9.86	35	10		

H[m]	D[m]	Max lux	Med lux	Beta=56.6°+56.6°	G=0.0
1.00	3.03	875	256		
2.00	6.06	219	64		
3.00	9.09	97	28		
4.00	12.13	55	16		
5.00	15.16	35	10		

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Flujo Total=2258.15 Flujo Luminaria=2258.15

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	0.33	0.42	0.49	0.56	0.61	0.70	0.75	0.79	0.83	0.86	0.92	0.96
RC	5	5	5	4	4	4	4	4	4	5	5	5

Flujo Zonal por 1000 Lúmenes

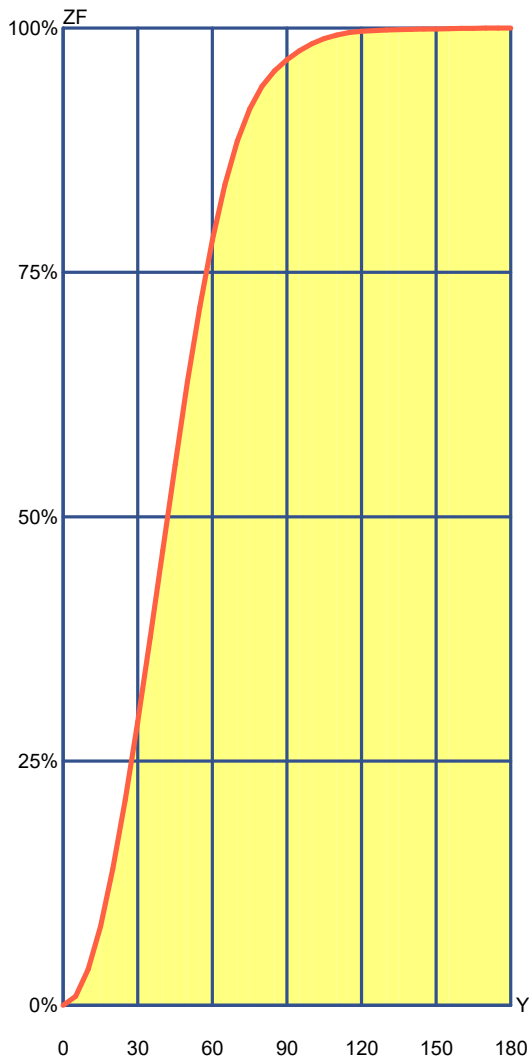
Y°	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
ZF(Y)	37	140	290	465	638	783	884	940	968	984	993	997	998	999	999	1000	1000	1000

Códigos de Flujo C.I.E.

51 81 95 97 100

C.I.E. 5/5/5/4/4/4/4/4/5/5/5
D DIN 5040 A41
F UTE 0.97 D + 0.03 T
B NBN BZ 4
RN 3.23438 %
BLF 1.0

LOR 100.00000 %
ULOR 3.23438 %
DLOR 96.76562 %
UFF 3.23438 %
DFF 96.76562 %
FFR 3.34249 %



Flujo Zonal				
Gamma °	Flujo	Suma lm	Flujo [%]	Suma [%]
0°	0.00	0.00	0.00 %	0.00 %
5°	9.24	9.24	0.92 %	0.92 %
10°	27.37	36.61	2.74 %	3.66 %
15°	44.15	80.75	4.41 %	8.08 %
20°	58.82	139.57	5.88 %	13.96 %
25°	70.79	210.36	7.08 %	21.04 %
30°	79.89	290.25	7.99 %	29.02 %
35°	86.00	376.25	8.60 %	37.62 %
40°	88.80	465.05	8.88 %	46.51 %
45°	88.25	553.30	8.82 %	55.33 %
50°	84.30	637.60	8.43 %	63.76 %
55°	77.25	714.85	7.73 %	71.49 %
60°	67.87	782.73	6.79 %	78.27 %
65°	56.81	839.54	5.68 %	83.95 %
70°	44.86	884.40	4.49 %	88.44 %
75°	33.03	917.43	3.30 %	91.74 %
80°	22.96	940.39	2.30 %	94.04 %
85°	15.74	956.13	1.57 %	95.61 %
90°	11.53	967.66	1.15 %	96.77 %
95°	9.15	976.80	0.91 %	97.68 %
100°	7.19	983.99	0.72 %	98.40 %
105°	5.32	989.31	0.53 %	98.93 %
110°	3.65	992.96	0.36 %	99.30 %
115°	2.32	995.28	0.23 %	99.53 %
120°	1.37	996.64	0.14 %	99.66 %
125°	0.79	997.44	0.08 %	99.74 %
130°	0.49	997.93	0.05 %	99.79 %
135°	0.37	998.30	0.04 %	99.83 %
140°	0.33	998.64	0.03 %	99.86 %
145°	0.30	998.94	0.03 %	99.89 %
150°	0.27	999.20	0.03 %	99.92 %
155°	0.23	999.43	0.02 %	99.94 %
160°	0.20	999.63	0.02 %	99.96 %
165°	0.16	999.79	0.02 %	99.98 %
170°	0.12	999.91	0.01 %	99.99 %
175°	0.07	999.98	0.01 %	100.00 %
180°	0.02	1000.00	0.00 %	100.00 %

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Isolux (Suelo)

Posición Luminaria X=0.00m Y=0.00m Z=2.50m

