

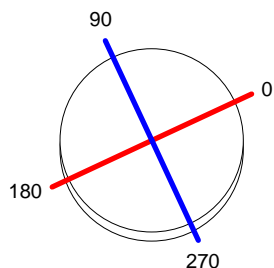
Luminaria		Ensayo		Lámpara	
Código	SOHO 112 CDM-R111	Código	SOHO 112 QR111	Código	FC 22 W/830
Nombre	SOHO 112 5x35W CDM-R 22+40W FC	Nombre	SOHO 112 5x50W QR111 22+40W FC	Número	7
Familia	- MARSET	Fecha	27-10-2010	Posición	Universal
Rendimiento	54.67%	Sist. de Coorden.	C-G	Flujo Total	11750.00 lm
Valor Máximo	1335.39 cd/klm	Posición	C=0.00 G=0.00	Bisimétrico	
Luminaria Redonda	Diam.	1120 mm	Altura	600 mm	
Área Luminosa Redonda	Diam.	1000 mm	Altura	1 mm	
Área Luminosa Horizontal	0.785398 m2		Área Emisión sobre Pl. 180°	0.001000 m2	
Área Emisión sobre Pl. 0°	0.001000 m2		Área Emisión sobre Pl. 270°	0.001000 m2	
Área Emisión sobre Pl. 90°	0.001000 m2		Área de deslumbramiento a 76°	0.190975 m2	
Tipo de Simetría	Bisimétrico	Máximo Ángulo Gamma	180		
Distancia de Ensayo	5.46	Flujo de Ensayo	7450.00 lm		
Operador	Asselum	Tensión de alimentación	230.00 V		
Temperatura	22.00 °C	Corr. aliment.			
Humedad	50.00 %	Fotocélula	PRC		
Notas					

Lámparas de la Luminaria					
Familia	Código	Nombre	Flujo lm	Pot. W	Cant.
OSRAM 2006 FD,FC	FC 22 W/830	FC® 22W/830 2GX13	1800.00	22.00	1
OSRAM 2006 FD,FC	FC 40 W/830	FC® 40W/830 2GX13	3200.00	40.00	1
PHILIPS 2005 ILCOS MD,MT,ME,MC	20450910	MASTER Col CDM-R111 35W/830	1350.00	35.00	5

C.I.E. 67 85 97 100 55
 F UTE 0.55 C + 0.00 T

D DIN 5040 A50
 B NBN BZ 1 / 0.8 / BZ 2 / 4 / BZ 3

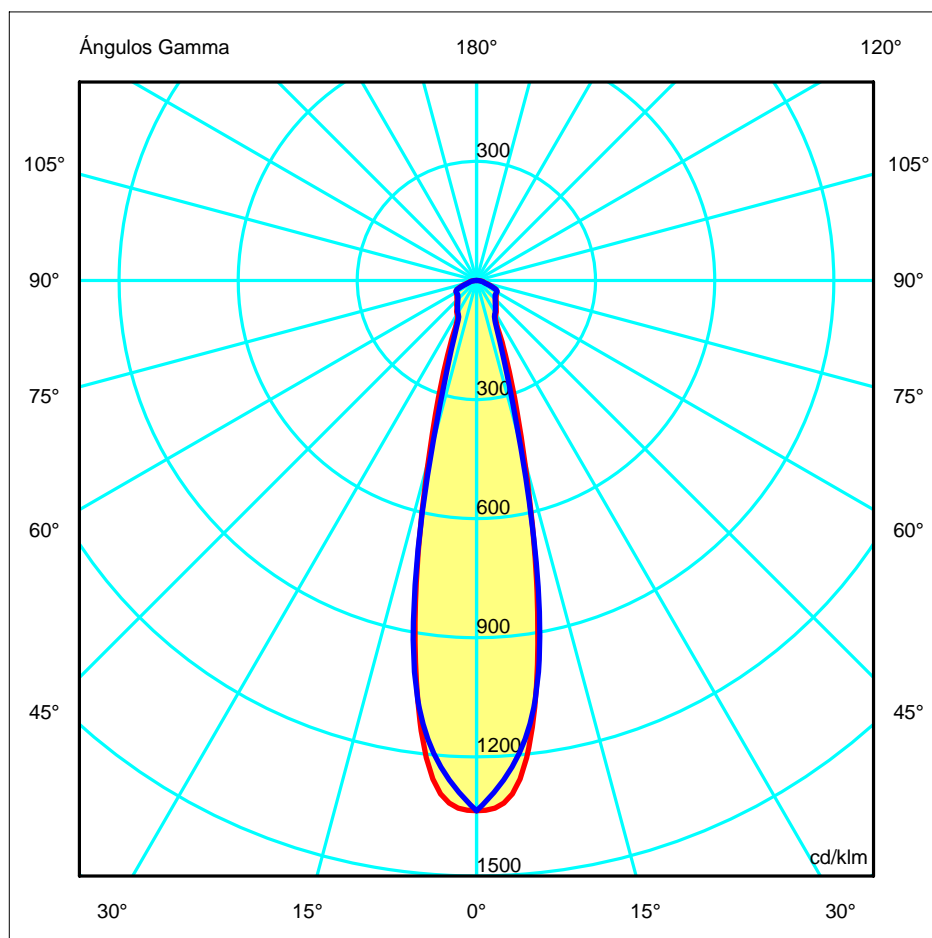
Diam=1120mm



Semiplanos C

180.0 — 0.0
 270.0 — 90.0

ULOR 0.06 %
 DLOR 54.61 %
 RN 0.12 %



Luminaria		Ensayo		Lámpara			
Código	SOHO 112 CDM-R111	Código	SOHO 112 QR111	Código	FC 22 W/830		
Nombre	SOHO 112 5x35W CDM-R 22+40W FC	Nombre	SOHO 112 5x50W QR111 22+40W FC	Número	7		
Familia	- MARSET	Fecha	27-10-2010	Posición	Universal		
Rendimiento	54.67%	Sist. de Coordin.	C-G	Flujo Total	11750.00 lm		
Tabla de Intensidad Luminosa cd/klm			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	1335.39	1335.39	1335.39	1335.39	1335.39	1335.39	1335.39
G 5.0	1260.47	1234.22	1227.44	1213.92	1207.12	1202.44	1201.30
G 10.0	890.72	924.13	929.48	937.82	902.79	889.50	918.47
G 15.0	467.53	482.43	487.50	485.95	485.04	467.04	423.14
G 20.0	236.94	207.98	212.41	206.56	203.35	195.11	185.45
G 25.0	119.73	116.41	117.09	115.34	115.94	113.91	108.86
G 30.0	97.80	95.73	94.69	95.51	97.18	95.33	93.98
G 35.0	86.41	84.39	83.49	83.85	86.10	84.60	82.70
G 40.0	77.36	75.25	74.54	75.19	76.58	75.55	73.63
G 45.0	69.51	67.92	67.06	67.55	68.24	67.53	66.31
G 50.0	64.53	62.55	61.33	62.53	62.77	62.43	61.05
G 55.0	60.88	59.26	58.50	59.71	60.25	60.30	58.59
G 60.0	59.09	56.68	56.10	58.29	59.23	59.22	58.93
G 65.0	54.50	49.12	48.37	50.43	51.70	51.55	53.49
G 70.0	37.63	33.48	33.23	34.89	33.56	32.41	31.67
G 75.0	22.24	20.66	21.12	20.46	21.02	20.04	19.73
G 80.0	16.28	14.49	13.78	14.06	14.09	14.49	14.16
G 85.0	10.04	7.86	7.82	7.48	7.86	7.38	7.61
G 90.0	2.30	2.13	2.26	2.11	2.21	2.05	3.77
G 95.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G100.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G105.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G110.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G115.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G120.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G125.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G130.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G135.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G140.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G145.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G150.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G155.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G160.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G165.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G170.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G175.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Luminaria

Código SOHO 112 CDM-R111
 Nombre SOHO 112 5x35W CDM-R 22+40W FC
 Familia - MARSET

Ensayo

Código SOHO 112 QR111
 Nombre SOHO 112 5x50W QR111 22+40W FC
 Fecha 27-10-2010

Lámpara

Código FC 22 W/830
 Número 7
 Posición Universal

Rendimiento 54.67%

Sist. de Coord. C-G

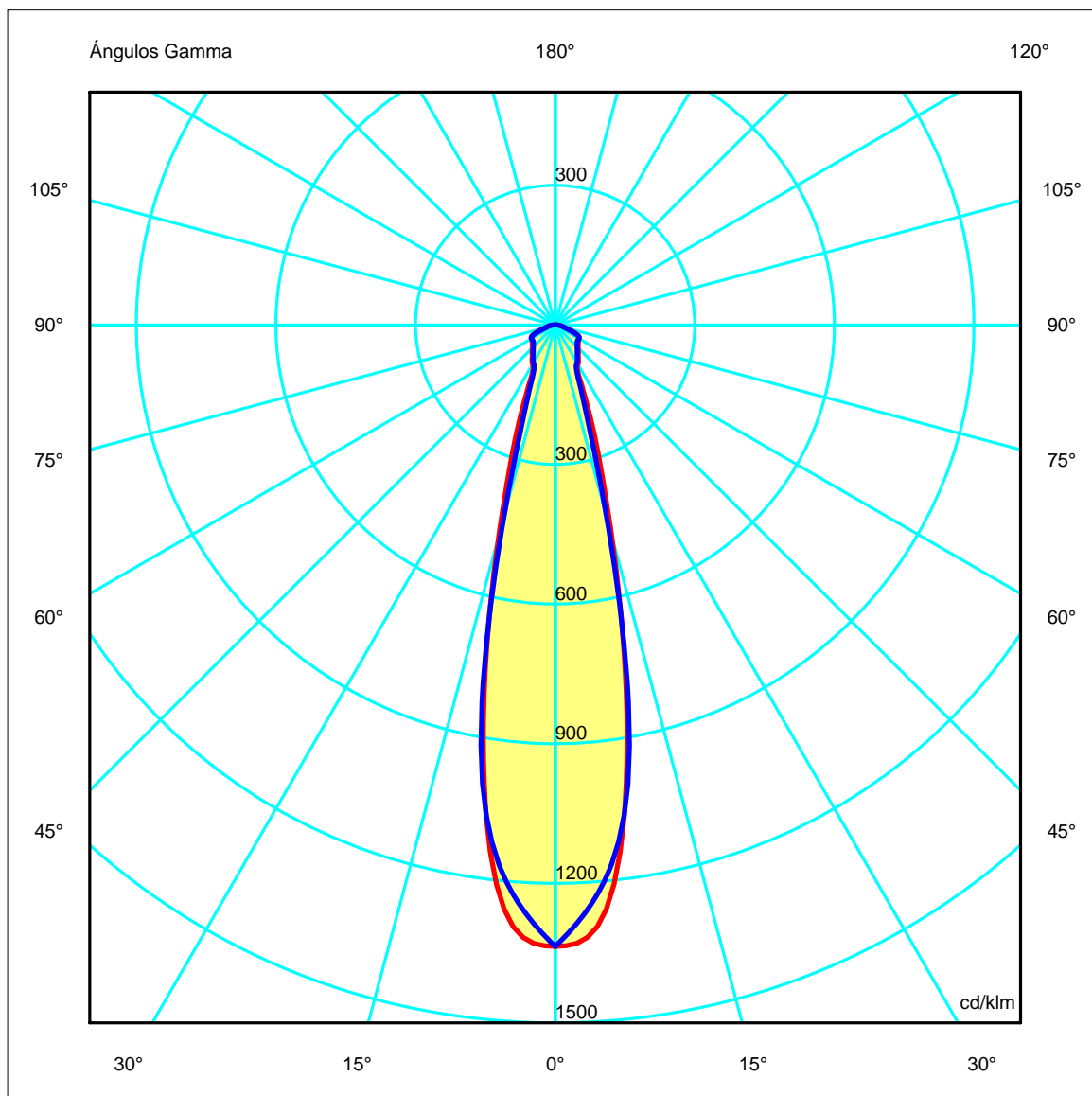
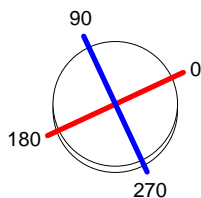
Flujo Total 11750.00 lm

Diam=1120mm

Semiplanos C

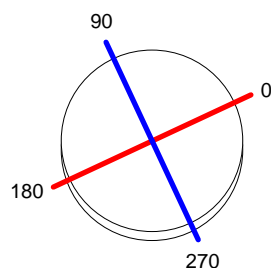
180.0 ————— 0.0

270.0 ————— 90.0



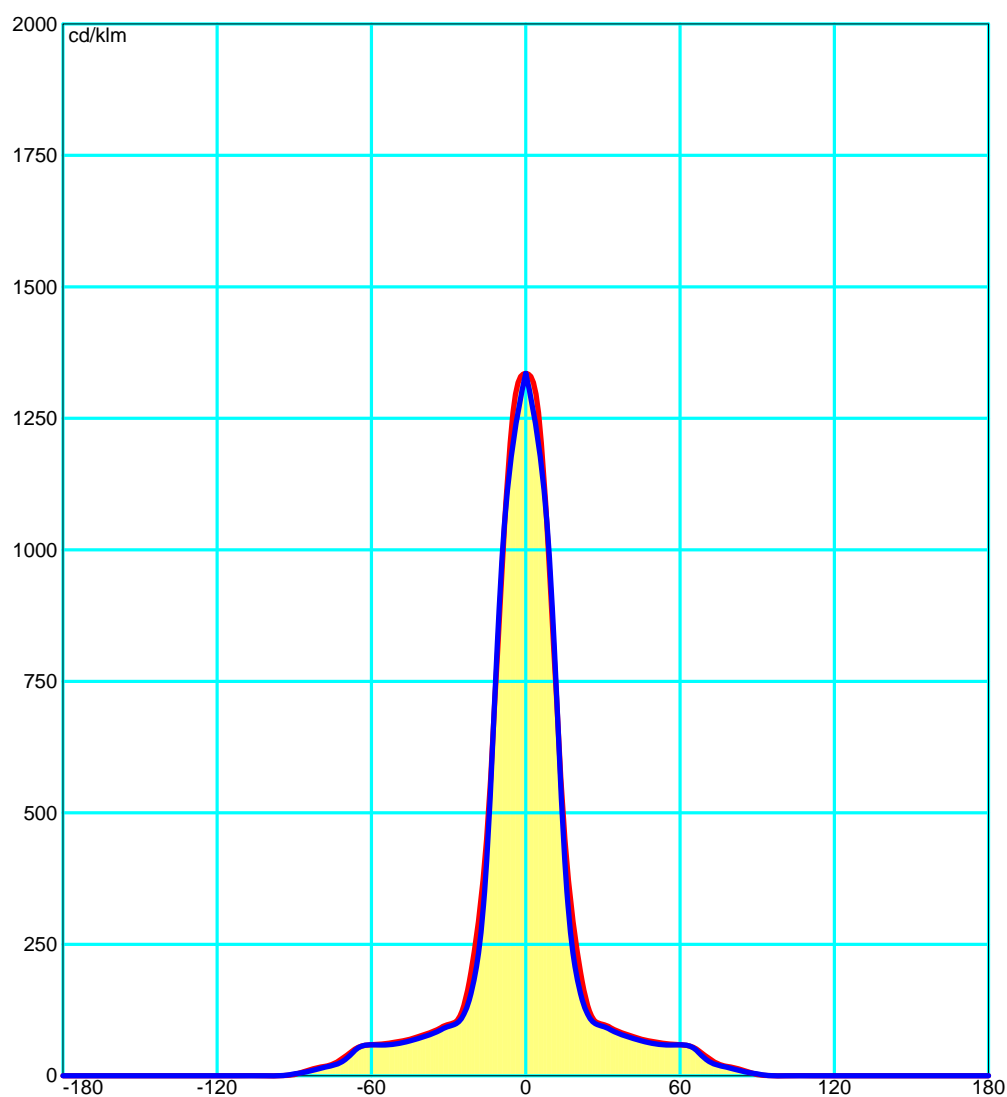
Luminaria		Ensayo		Lámpara	
Código	SOHO 112 CDM-R111	Código	SOHO 112 QR111	Código	FC 22 W/830
Nombre	SOHO 112 5x35W CDM-R 22+40W FC	Nombre	SOHO 112 5x50W QR111 22+40W FC	Número	7
Familia	- MARSET	Fecha	27-10-2010	Posición	Universal
Rendimiento	54.67%	Sist. de Coord.	C-G	Flujo Total	11750.00 lm

Diam=1120mm



Semiplanos C

180.0 ————— 0.0
 270.0 ————— 90.0

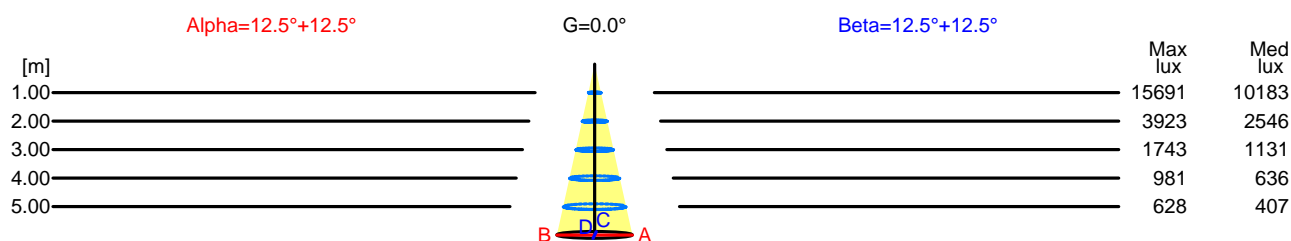


Luminaria		Ensayo		Lámpara	
Código	SOHO 112 CDM-R111	Código	SOHO 112 QR111	Código	FC 22 W/830
Nombre	SOHO 112 5x35W CDM-R 22+40W FC	Nombre	SOHO 112 5x50W QR111 22+40W FC	Número	7
Familia	- MARSET	Fecha	27-10-2010	Posición	Universal
Rendimiento	54.67%	Sist. de Coord.	C-G	Flujo Total	11750.00 lm

Apertura a 50.00 % de MaxLux

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	0.22	0.44	0.66	0.88	1.11	OC	0.22	0.44	0.66	0.89	1.11
OB	0.22	0.44	0.66	0.88	1.11	OD	0.22	0.44	0.66	0.89	1.11

	Intensidades Luminosas [cd/klm]									
	0	5	15	25	35	45	55	65	75	85
OA	1335.39	1260.47	467.53	119.73	86.41	69.51	60.88	54.50	22.24	10.04
OB	1335.39	1260.47	467.53	119.73	86.41	69.51	60.88	54.50	22.24	10.04
OC	1335.39	1201.30	423.14	108.86	82.70	66.31	58.59	53.49	19.73	7.61
OD	1335.39	1201.30	423.14	108.86	82.70	66.31	58.59	53.49	19.73	7.61



H[m]	D[m]	Max lux	Med lux	Alpha=12.5°+12.5°	G=0.0	
1.00	0.44	15691	10183			
2.00	0.88	3923	2546			
3.00	1.33	1743	1131			
4.00	1.77	981	636			
5.00	2.21	628	407			

H[m]	D[m]	Max lux	Med lux	Beta=12.5°+12.5°	G=0.0	
1.00	0.44	15691	10183			
2.00	0.89	3923	2546			
3.00	1.33	1743	1131			
4.00	1.77	981	636			
5.00	2.22	628	407			

Luminaria				Ensayo				Lámpara			
Código	SOHO 112 CDM-R111			Código	SOHO 112 QR111			Código	FC 22 W/830		
Nombre	SOHO 112 5x35W CDM-R 22+40W FC			Nombre	SOHO 112 5x50W QR111 22+40W FC			Número	7		
Familia	- MARSET			Fecha	27-10-2010			Posición	Universal		
Rendimiento	54.67%			Sist. de Coord.	C-G			Flujo Total	11750.00 lm		

Flujo Total=11750.00 Flujo Luminaria=6423.78

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	0.48	0.54	0.60	0.66	0.70	0.77	0.82	0.85	0.89	0.91	0.96	0.99
RC	2	2	2	2	3	3	2	2	2	2	1	-

Flujo Zonal por 1000 Lúmenes

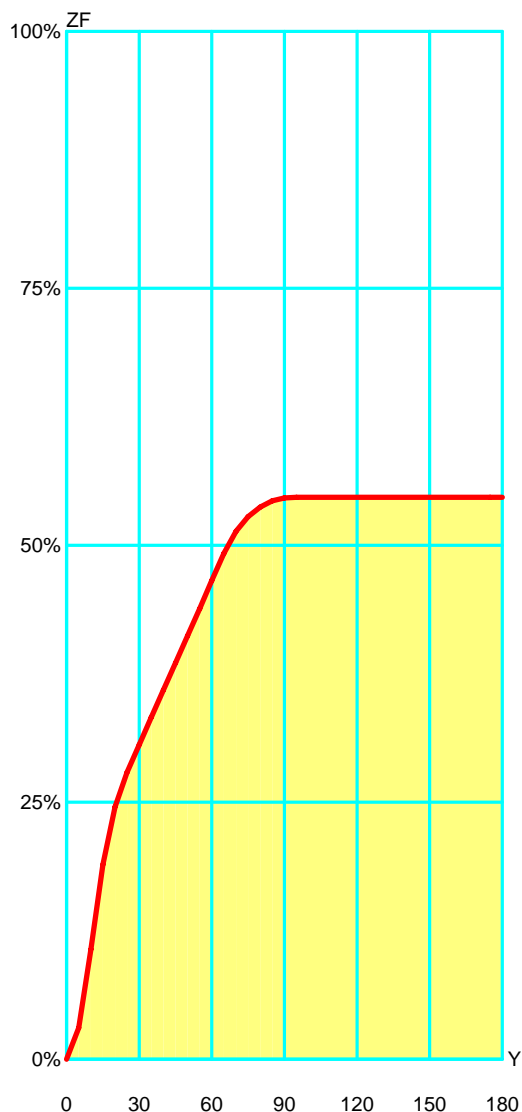
Y°	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
ZF(Y)	107	246	306	359	412	466	514	537	546	547	547	547	547	547	547	547	547	547

Códigos de Flujo C.I.E.

67 85 97 100 55

C.I.E. 2/2/2/2/3/2/2/2/1/-
D DIN 5040 A50
F UTE 0.55 C + 0.00 T
B NBN BZ 1 / 0.8 / BZ 2 / 4 / BZ 3
RN 0.11514 %
BLF 1.0

LOR 54.67045 %
ULOR 0.06295 %
DLOR 54.60751 %
UFF 0.11514 %
DFF 99.88486 %
FFR 0.11527 %



Flujo Zonal				
Gamma °	Flujo	Suma lm	Flujo [%]	Suma [%]
0°	0.00	0.00	0.00 %	0.00 %
5°	30.54	30.54	5.59 %	5.59 %
10°	76.34	106.88	13.96 %	19.55 %
15°	82.47	189.35	15.08 %	34.64 %
20°	56.18	245.53	10.28 %	44.91 %
25°	33.73	279.26	6.17 %	51.08 %
30°	26.73	305.99	4.89 %	55.97 %
35°	26.54	332.53	4.85 %	60.82 %
40°	26.68	359.21	4.88 %	65.70 %
45°	26.50	385.71	4.85 %	70.55 %
50°	26.29	412.00	4.81 %	75.36 %
55°	26.53	438.54	4.85 %	80.21 %
60°	27.21	465.74	4.98 %	85.19 %
65°	26.49	492.23	4.84 %	90.04 %
70°	21.41	513.64	3.92 %	93.95 %
75°	14.22	527.87	2.60 %	96.55 %
80°	9.38	537.25	1.72 %	98.27 %
85°	6.04	543.29	1.10 %	99.38 %
90°	2.79	546.08	0.51 %	99.88 %
95°	0.63	546.70	0.12 %	100.00 %
100°	0.00	546.70	0.00 %	100.00 %
105°	0.00	546.70	0.00 %	100.00 %
110°	0.00	546.70	0.00 %	100.00 %
115°	0.00	546.70	0.00 %	100.00 %
120°	0.00	546.70	0.00 %	100.00 %
125°	0.00	546.70	0.00 %	100.00 %
130°	0.00	546.70	0.00 %	100.00 %
135°	0.00	546.70	0.00 %	100.00 %
140°	0.00	546.70	0.00 %	100.00 %
145°	0.00	546.70	0.00 %	100.00 %
150°	0.00	546.70	0.00 %	100.00 %
155°	0.00	546.70	0.00 %	100.00 %
160°	0.00	546.70	0.00 %	100.00 %
165°	0.00	546.70	0.00 %	100.00 %
170°	0.00	546.70	0.00 %	100.00 %
175°	0.00	546.70	0.00 %	100.00 %
180°	0.00	546.70	0.00 %	100.00 %

Luminaria		Ensayo		Lámpara	
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Familia	- MARSET	Fecha	27-10-2010	Posición	Universal
Rendimiento	54.67%	Sist. de Coorden.	C-G	Flujo Total	11750.00 lm

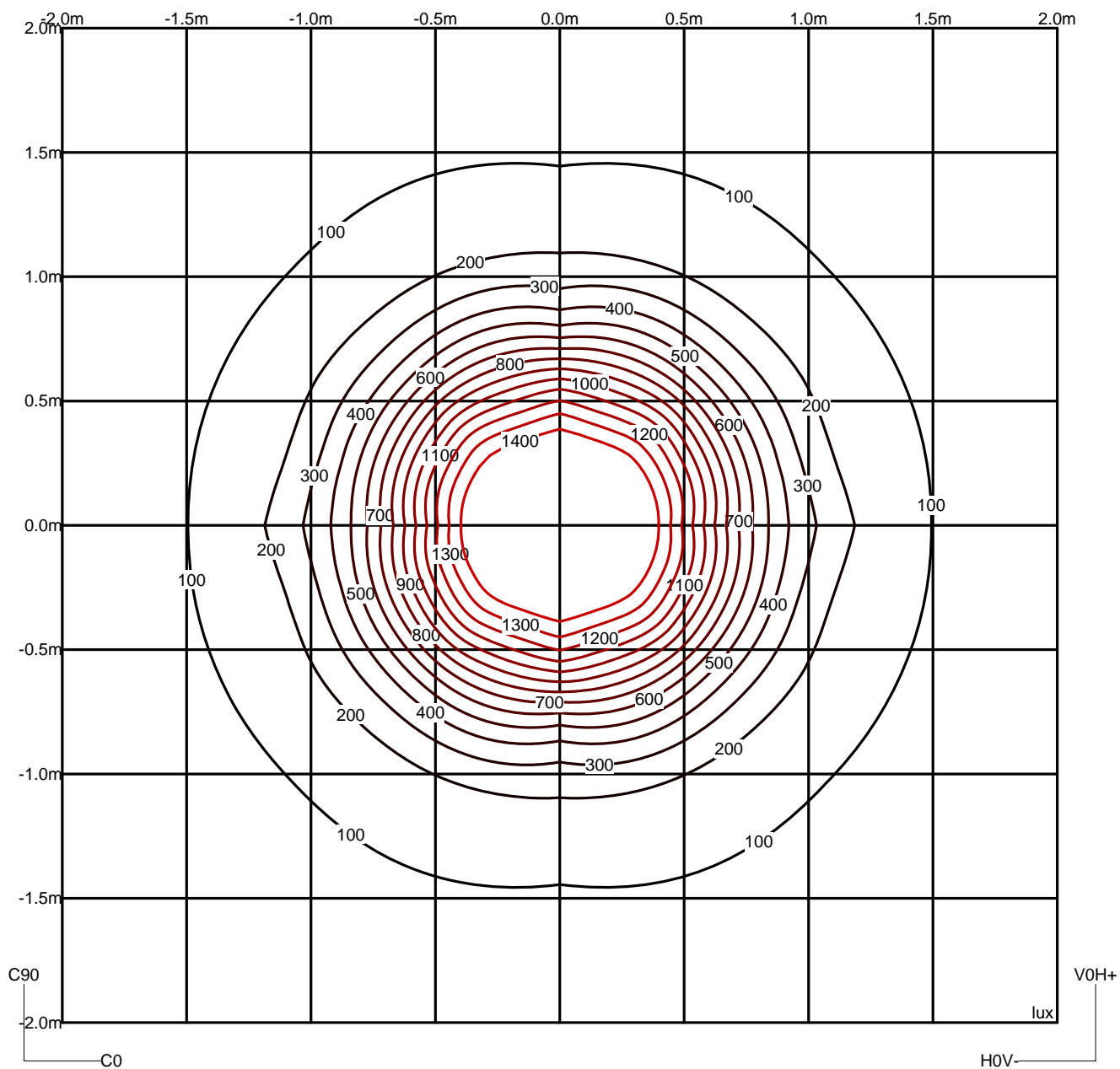
UGR
S = 0.250

Reflectancias										
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	12.6	13.7	12.9	13.9	14.3	12.8	13.9	13.1	14.1	14.3
x=2H y=3H	14.6	15.6	14.9	15.8	16.1	14.6	15.6	14.9	15.9	16.1
x=2H y=4H	15.1	16.0	15.4	16.3	16.5	15.0	16.0	15.4	16.2	16.5
x=2H y=6H	15.6	16.5	16.0	16.8	16.9	15.5	16.3	15.8	16.6	16.9
x=2H y=8H	15.8	16.7	16.2	17.0	17.1	15.7	16.5	16.0	16.8	17.1
x=2H y=12H	16.1	16.9	16.5	17.2	17.2	15.8	16.6	16.2	16.9	17.2
x=4H y=2H	13.6	14.5	14.0	14.8	15.3	13.8	14.7	14.1	15.0	15.3
x=4H y=3H	15.6	16.3	15.9	16.7	17.0	15.6	16.4	16.0	16.7	17.0
x=4H y=4H	16.2	16.9	16.6	17.2	17.5	16.1	16.8	16.5	17.2	17.5
x=4H y=6H	16.8	17.4	17.2	17.8	18.1	16.7	17.3	17.1	17.7	18.1
x=4H y=8H	17.1	17.6	17.5	18.0	18.3	17.0	17.5	17.4	17.9	18.3
x=4H y=12H	17.4	17.9	17.8	18.3	18.5	17.2	17.6	17.6	18.0	18.5
x=8H y=4H	16.5	17.0	16.9	17.4	17.8	16.4	17.0	16.8	17.4	17.8
x=8H y=6H	17.2	17.6	17.6	18.0	18.4	17.1	17.6	17.6	18.0	18.4
x=8H y=8H	17.6	18.0	18.1	18.4	18.8	17.5	17.9	18.0	18.3	18.8
x=8H y=12H	18.0	18.3	18.5	18.8	19.1	17.8	18.1	18.3	18.6	19.1
x=12H y=4H	16.5	17.0	16.9	17.4	17.8	16.5	16.9	16.9	17.3	17.8
x=12H y=6H	17.2	17.6	17.7	18.1	18.5	17.2	17.6	17.7	18.0	18.5
x=12H y=8H	17.7	18.0	18.2	18.5	18.9	17.6	17.9	18.1	18.4	18.9

Luminaria		Ensayo		Lámpara	
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Familia	- MARSET	Fecha	27-10-2010	Posición	Universal
Rendimiento	54.67%	Sist. de Coord.	C-G	Flujo Total	11750.00 lm

Isolux (Suelo)

Posición Luminaria X=0.00m Y=0.00m Z=3.00m



Luminaria				Ensayo				Lámpara			
Código	SOHO 112 CDM-R111			Código	SOHO 112 QR111			Código	FC 22 W/830		
Nombre	SOHO 112 5x35W CDM-R 22+40W FC			Nombre	SOHO 112 5x50W QR111 22+40W FC			Número	7		
Familia	- MARSET			Fecha	27-10-2010			Posición	Universal		
Rendimiento	54.67%			Sist. de Coorden.	C-G			Flujo Total	11750.00 lm		

Utilización CIE

Montaje	Directo				114-Norm type				Normalizados				Raz. de Susp.				1/3				CIE Estándar							
Techo																												
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	107	96	76	69	91	66	57	49	40	34	22	17	10	7	32	18	16	8	6	15	7	6	0					
0.80	126	115	82	76	110	73	73	64	46	41	28	22	14	10	38	23	21	11	10	20	10	9	0					
1.00	139	129	84	78	123	75	86	77	50	45	31	26	17	13	42	27	25	15	13	23	13	11	0					
1.25	150	142	83	79	135	76	100	90	53	48	35	30	21	17	46	31	28	18	16	27	16	15	0					
1.50	159	151	82	79	144	76	110	101	55	51	38	33	24	20	48	34	31	22	19	30	19	18	0					
2.00	170	163	78	76	156	73	126	118	56	53	42	37	30	25	50	38	36	27	24	34	25	23	0					
2.50	177	171	75	73	164	71	138	131	56	54	44	40	34	30	51	40	39	31	29	37	29	27	0					
3.00	182	177	72	71	169	69	147	140	57	54	46	43	37	33	52	43	41	34	32	40	32	30	0					
4.00	189	185	69	68	177	66	159	153	57	55	49	46	41	38	53	46	44	39	37	43	37	35	1					
5.00	194	191	67	66	183	65	167	162	57	56	50	48	44	41	54	48	47	42	40	45	40	38	1					
10.00	204	202	62	62	194	61	186	183	58	57	54	53	51	50	55	52	52	49	48	50	48	46	1					
20.00	209	208	60	60	200	59	196	195	58	57	57	56	55	54	56	55	54	54	53	53	52	51	1					

Pared

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	214	209	176	172	205	170	162	158	137	135	115	113	99	98	133	113	112	98	98	112	98	97	86
0.80	242	236	192	189	231	186	188	183	155	152	133	130	117	115	150	131	130	115	115	129	115	114	100
1.00	259	253	199	196	247	193	206	200	165	162	144	141	128	126	160	141	140	126	125	139	125	124	109
1.25	275	268	205	203	261	199	223	217	174	171	155	152	139	137	168	151	150	137	136	148	136	134	117
1.50	286	280	209	206	272	203	236	230	180	178	162	159	147	145	174	158	157	145	144	155	143	142	123
2.00	295	290	206	204	280	200	249	243	182	180	167	164	154	151	176	162	161	151	150	159	149	146	126
2.50	298	293	201	199	282	196	256	250	181	179	168	165	156	154	174	163	162	153	151	159	150	147	126
3.00	298	294	195	193	282	190	259	254	177	175	166	163	156	153	170	161	160	152	151	156	149	146	123
4.00	300	297	189	188	284	185	265	261	175	173	166	164	158	155	168	160	160	153	152	156	149	146	122
5.00	301	298	184	184	284	180	268	264	172	171	165	163	158	156	165	159	158	153	152	154	149	145	119
10.00	288	286	159	159	270	156	262	259	152	151	148	147	144	143	145	142	141	139	138	136	134	129	101
20.00	251	250	116	116	233	113	229	228	111	111	110	109	108	107	105	103	103	102	101	97	96	91	62

P.Trab.

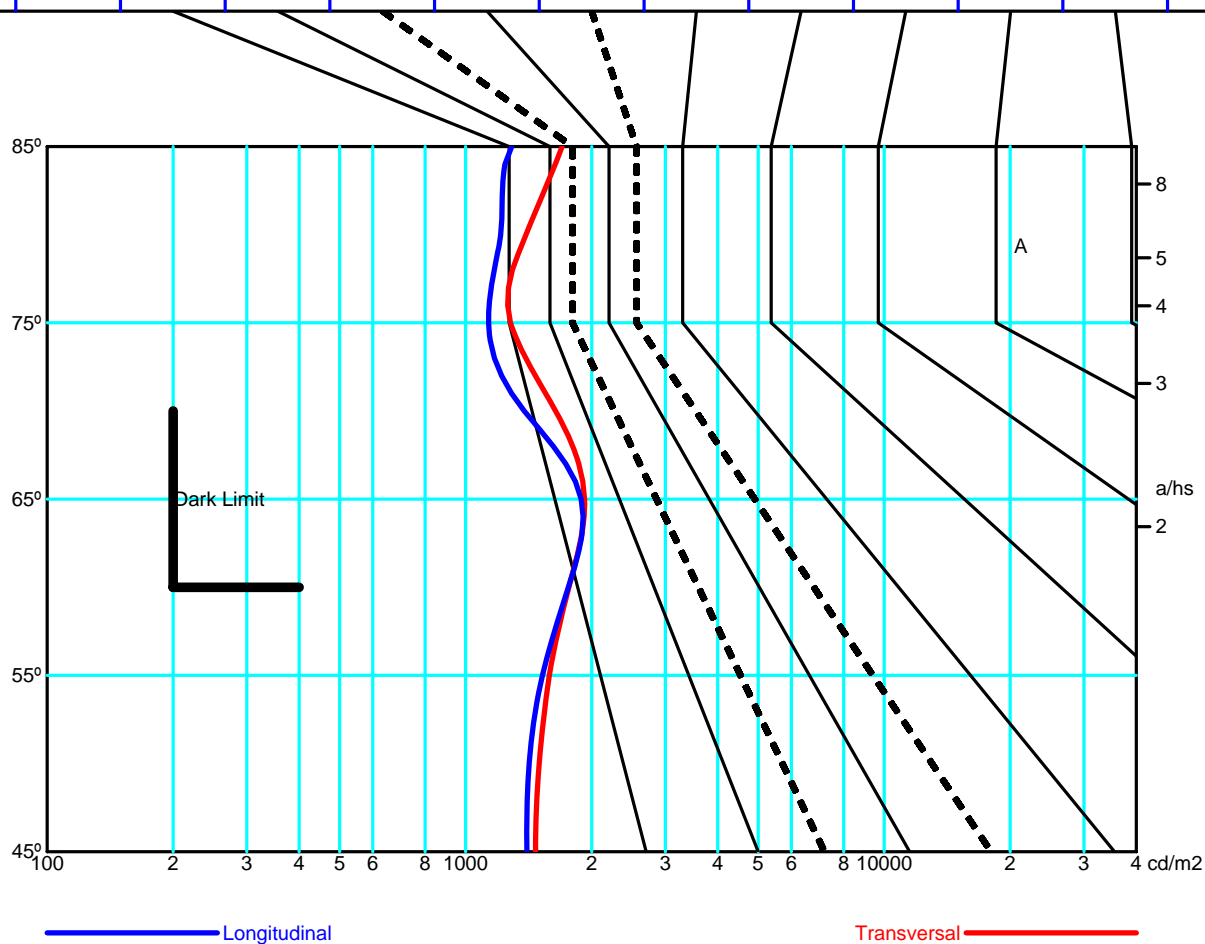
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0.60	393	387	367	363	383	360	330	326	318	315	289	287	269	268	313	287	286	268	267	286	267	267	260
0.80	441	434	406	402	428	398	374	369	357	354	328	325	306	304	351	325	324	305	304	322	304	303	295
1.00	480	472	437	433	465	429	413	407	391	387	362	359	340	338	383	358	357	338	337	355	337	336	328
1.25	515	508	465	461	498	456	449	442	421	417	394	390	373	370	412	389	388	370	368	385	368	366	358
1.50	542	535	484	481	523	475	478	470	444	440	418	414	398	394	434	413	411	394	393	408	392	389	382
2.00	582	575	513	510	561	504	522	514	478	475	457	453	439	435	468	450	448	434	432	444	430	427	420
2.50	608	602	531	528	586	522	552	545	501	498	483	479	467	463	490	475	473	461	459	468	456	452	446
3.00	627	621	543	541	604	535	574	567	517	514	501	497	487	483	506	493	491	481	479	485	475	470	464
4.00	649	645	557	555	625	549	601	595	535	533	523	520	511	508	524	513	512	504	502	505	497	491	485
5.00	663	659	565	564	638	558	618	613	546	545	536	533	527	523	535	526	525	518	516	517	511	504	498
10.00	692	690	582	581	666	575	656	653	569	569	565	563	560	557	558	553	553	550	548	543	540	531	526
20.00	708	706	590	589	681	583	676	674	581	581	579	578	577	576	569	567	567	566	565	556	555	545	540

LM53 SHR C0-C180: 0.416 SHR C90-C270: 0.425 SHR Superficial: 0.424

Luminaria		Ensayo		Lámpara	
Código	SOHO 112 CDM-R111	Código	SOHO 112 QR111	Código	FC 22 W/830
Nombre	SOHO 112 5x35W CDM-R 22+40W FC	Nombre	SOHO 112 5x50W QR111 22+40W FC	Número	7
Familia	- MARSET	Fecha	27-10-2010	Posición	Universal
Rendimiento	54.67%	Sist. de Coord.	C-G	Flujo Total	11750.00 lm

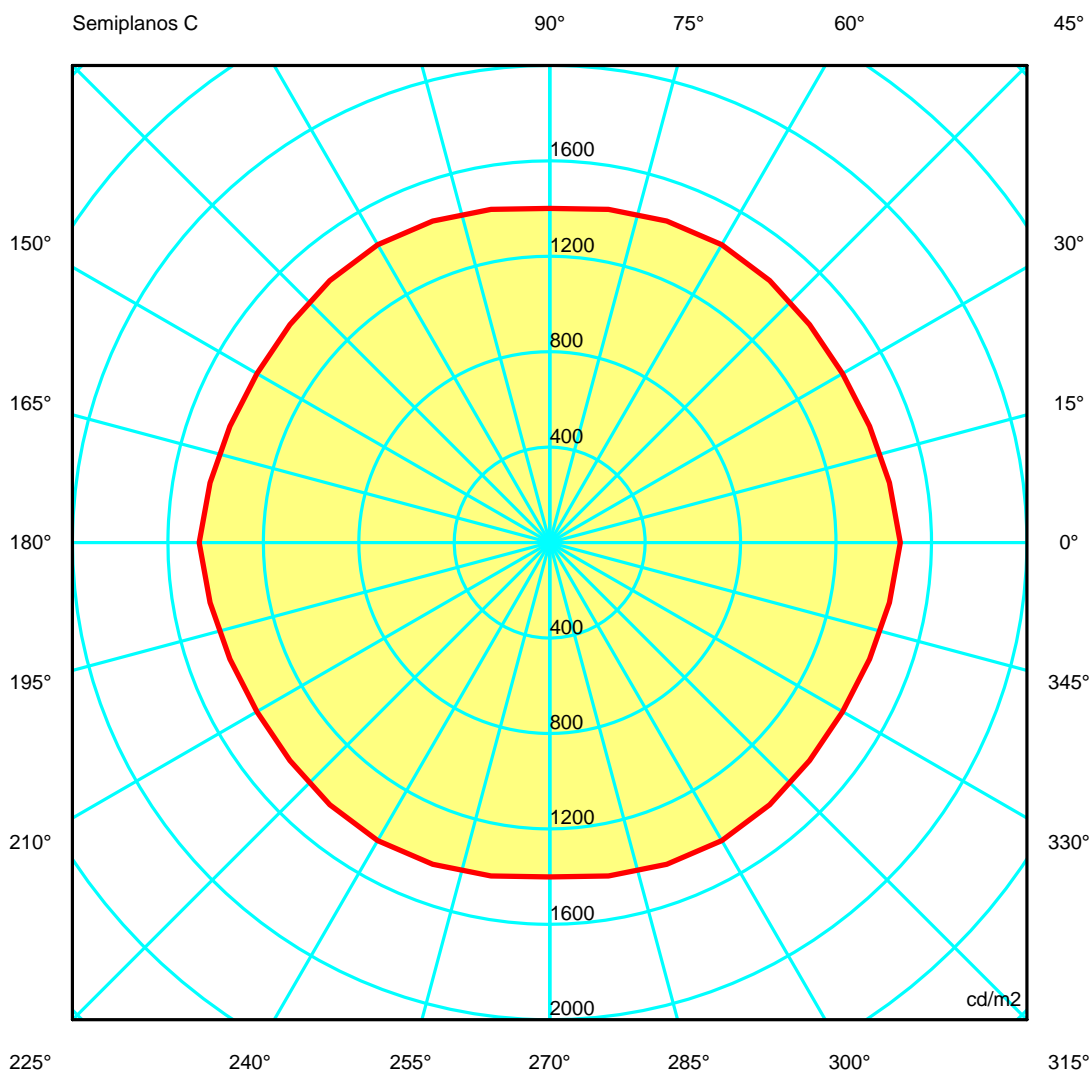
	45°	50°	55°	60°	Luminancia Media [cd/m²]		75°	80°	85°	
0°	1468.9	1499.6	1585.1	1764.2	65°	1924.0	1640.3	1279.6	1392.8	1699.4
90°	1401.2	1418.6	1525.6	1759.5	60°	1888.4	1380.4	1135.2	1211.0	1288.0

Flujo montado o vista longitudinal												
		Iluminancia (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



Luminaria		Ensayo		Lámpara	
Código	SOHO 112 CDM-R111	Código	SOHO 112 QR111	Código	FC 22 W/830
Nombre	SOHO 112 5x35W CDM-R 22+40W FC	Nombre	SOHO 112 5x50W QR111 22+40W FC	Número	7
Familia	- MARSET	Fecha	27-10-2010	Posición	Universal
Rendimiento	54.67%	Sist. de Coord.	C-G	Flujo Total	11750.00 lm

Luminancia												
G/C	0	30	60	90	120	150	180	210	240	270	300	330
0°	19978.12	19978.12	19978.12	19978.12	19978.12	19978.12	19978.12	19978.12	19978.12	19978.12	19978.12	19978.12
5°	18927.26	18431.22	18126.19	18038.73	18126.19	18431.22	18927.26	18431.22	18126.19	18038.73	18126.19	18431.22
10°	13528.15	14116.93	13711.57	13949.70	13711.57	14116.93	13528.15	14116.93	13711.57	13949.70	13711.57	14116.93
15°	7238.84	7547.99	7509.85	6551.42	7509.85	7547.99	7238.84	7547.99	7509.85	6551.42	7509.85	7547.99
20°	3770.46	3380.16	3235.90	2951.16	3235.90	3380.16	3770.46	3380.16	3235.90	2951.16	3235.90	3380.16
25°	1975.20	1931.73	1912.73	1795.84	1912.73	1931.73	1975.20	1931.73	1912.73	1795.84	1912.73	1931.73
30°	1688.27	1634.55	1677.54	1622.24	1677.54	1634.55	1688.27	1634.55	1677.54	1622.24	1677.54	1634.55
35°	1576.67	1523.50	1571.12	1509.14	1571.12	1523.50	1576.67	1523.50	1571.12	1509.14	1571.12	1523.50
40°	1509.13	1454.21	1493.92	1436.44	1493.92	1454.21	1509.13	1454.21	1493.92	1436.44	1493.92	1454.21
45°	1468.87	1416.99	1441.87	1401.23	1441.87	1416.99	1468.87	1416.99	1441.87	1401.23	1441.87	1416.99
50°	1499.59	1425.33	1458.81	1418.64	1458.81	1425.33	1499.59	1425.33	1458.81	1418.64	1458.81	1425.33
55°	1585.09	1522.97	1568.71	1525.55	1568.71	1522.97	1585.09	1522.97	1568.71	1525.55	1568.71	1522.97
60°	1764.20	1674.91	1768.25	1759.51	1768.25	1674.91	1764.20	1674.91	1768.25	1759.51	1768.25	1674.91
65°	1923.99	1707.48	1825.02	1888.41	1825.02	1707.48	1923.99	1707.48	1825.02	1888.41	1825.02	1707.48
70°	1640.29	1448.66	1462.99	1380.39	1462.99	1448.66	1640.29	1448.66	1462.99	1380.39	1462.99	1448.66
75°	1279.64	1215.28	1209.40	1135.21	1209.40	1215.28	1279.64	1215.28	1209.40	1135.21	1209.40	1215.28
80°	1392.81	1178.31	1205.49	1211.01	1205.49	1178.31	1392.81	1178.31	1205.49	1211.01	1205.49	1178.31
85°	1699.41	1323.03	1330.63	1288.01	1330.63	1323.03	1699.41	1323.03	1330.63	1288.01	1330.63	1323.03
90°	27075.46	26601.32	25931.72	44283.05	25931.72	26601.32	27075.46	26601.32	25931.72	44283.05	25931.72	26601.32



45.0°