

## focus sm a cob e

linha de luminárias embutidas orientáveis para tecnologia led em alumínio tratado e pintado por processo eletrostático nas cores padrão lumini, com dispositivo antiofuscamento na cor preta.


### informações técnicas

fonte de luz  
LED integrado

IRC  
alto índice de reprodução de cor (irc>90 | r9>60)

vida útil  
50.000h

potência (W), fecho, temperatura de cor (K),  
fluxo nominal (lm nominal), fluxo útil (lm útil)

W		K	lm nominal	lm útil
12,5	concentrado	2700		
12,5	médio	2700		
12,5	aberto	2700		
12,5	concentrado	3000	1550	1152
12,5	médio	3000	1550	1096
12,5	aberto	3000	1550	1053
12,5	concentrado	4000		
12,5	médio	4000		
12,5	aberto	4000		

### equipamentos

LED driver 350mA (incluso, ponto remoto)

### controle

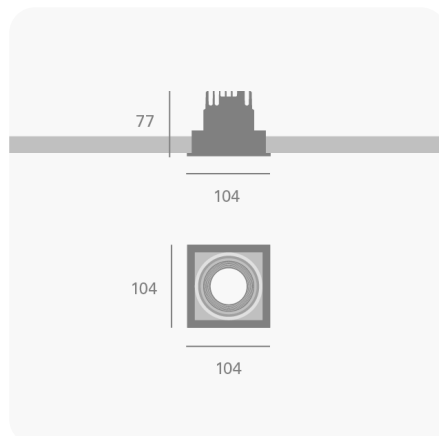
on/off  
dim fphase  
dim dali  
dim 1-10V

### instalação

forro de gesso  
forro modular  
marcenaria

IP  
20

### dimensões



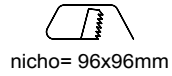
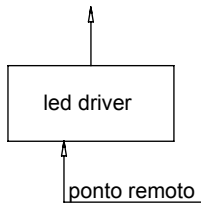
## acabamentos e cores

## cores



## vista lateral

dimensões em milímetros



## focus sm a cob serie 2 e

folha  
1/1

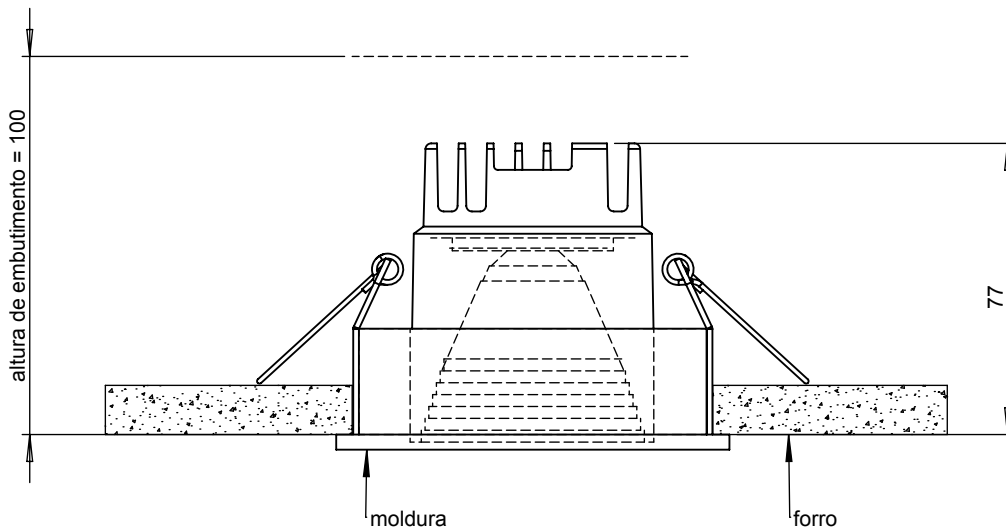
escala  
1:2

data  
07/06/2019

desenhista  
joao ferreira

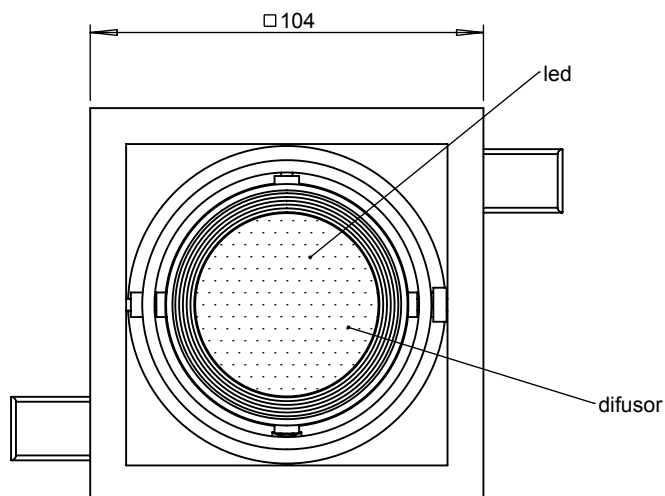
aprovação  
edmilson

revisões  
07/06/2019



## vista inferior

dimensões em milímetros



para maiores informações,  
consulte a área técnica  
produto@lumini.com.br



lumini Solucoes em Iluminacao LTDA  
www.lumini.com.br  
Email:laboratorio@lumini.com.br  
Tel:+55 11 3437-5555 Fax:+55 11 3437-5555  
Address:Rua Ferreira Viana, 716 - Socorro - São Paulo/SP

---

## lumini

---

LumCAT:

Luminaire: focus sm a cob serie 2 e fa

LampCAT: modulo led 12.5W 3000K irc 90

Ballast type: led driver 350mA

Report No:

Voltage(V): 127.0000

Test No:

Current(A): 0.1100

Number of Lamps: 1

Power (W): 13.7400

Lamp flux(lm): 1550.0

PF: 0.9800

Length(mm): 55

Width(mm): 55

Phm Type: C

Height(mm): 0

---

## Photometric Results

---

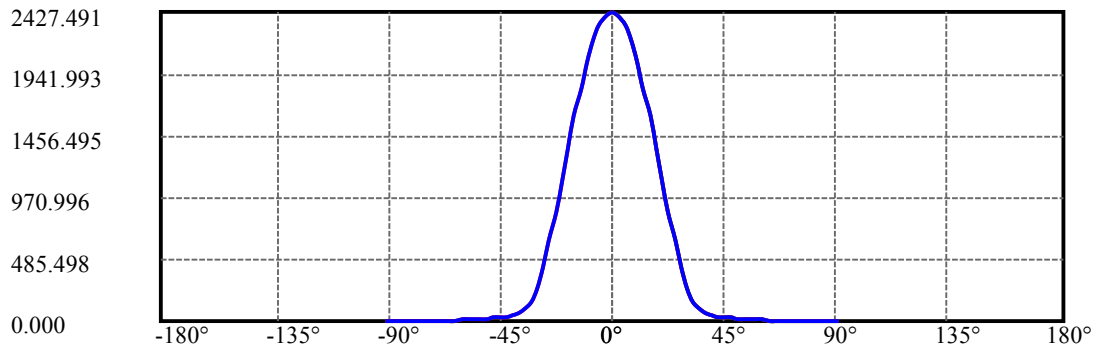
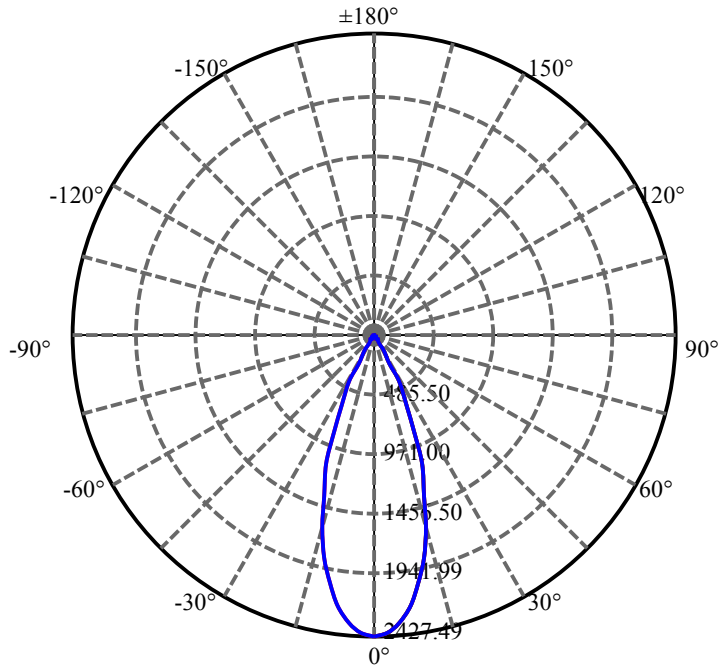
Lumens(lm): 1052.53, Efficiency(%): 67.91% , Luminous Efficacy(lm/W): 76.60

Central intensity(cd): 2427.491, Maximum intensity(cd): 2427.491

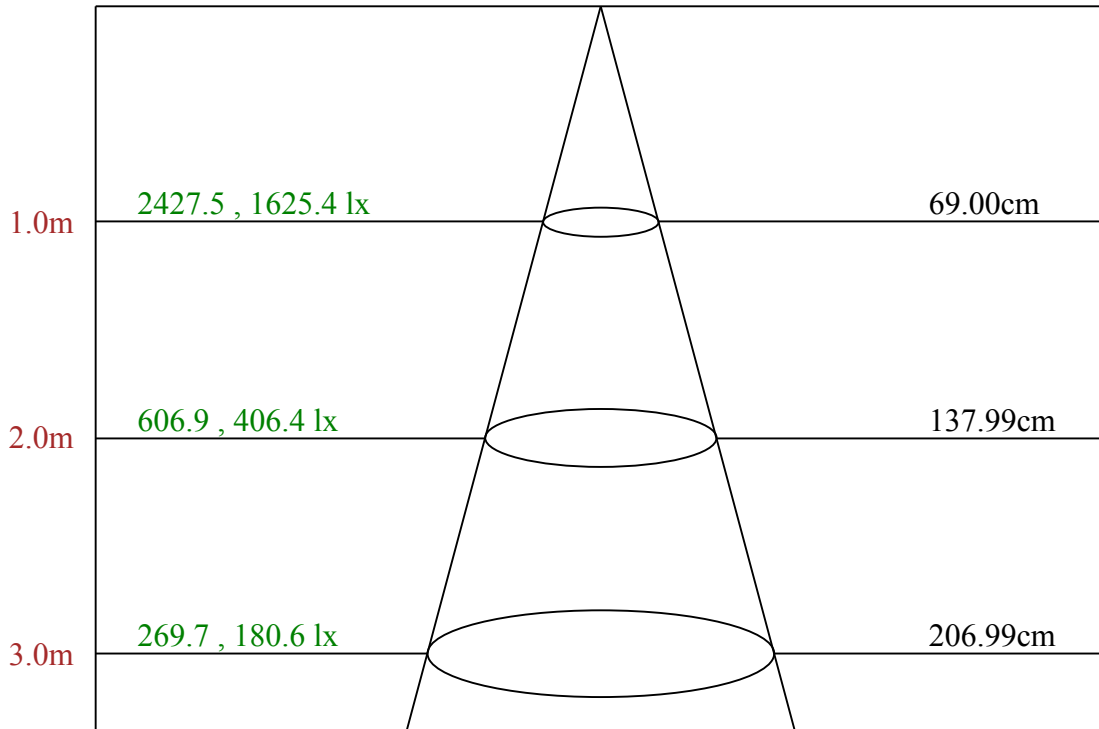
Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam angle of C0 plane : 38.07

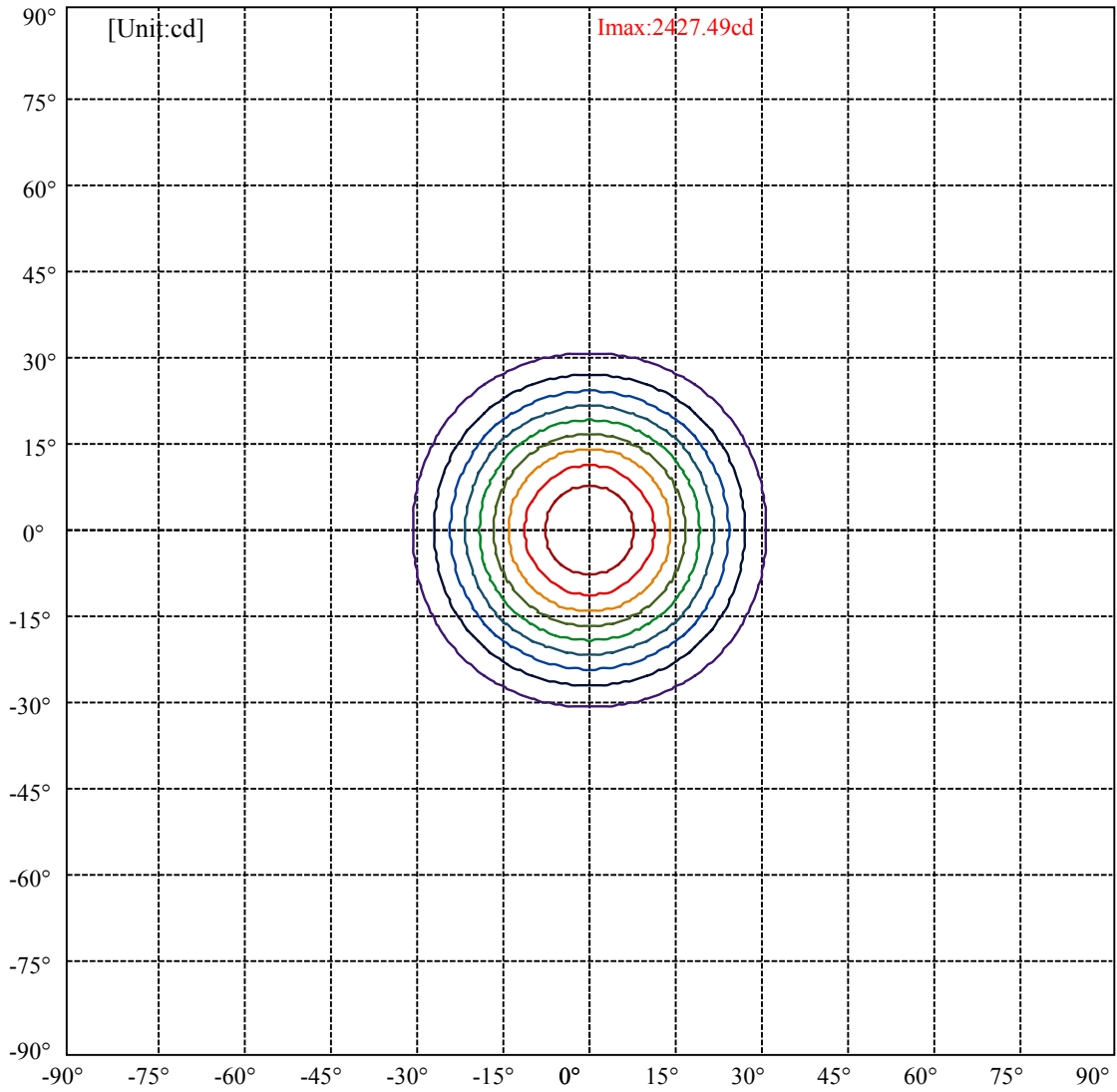
Aveage BeamAngle(IEC 61341):38.07



C0(Max): —  
C0/C180: —  
C90/C270: —



Max , Ave      Beam angle of C0 plane 38.07



(10%Imax) 242.749	—
(20%Imax) 485.498	—
(30%Imax) 728.247	—
(40%Imax) 970.996	—
(50%Imax) 1213.75	—
(60%Imax) 1456.49	—
(70%Imax) 1699.24	—
(80%Imax) 1941.99	—
(90%Imax) 2184.74	—

lumini

Luminance Limiting Curve(no luminous side)

Luminance Table

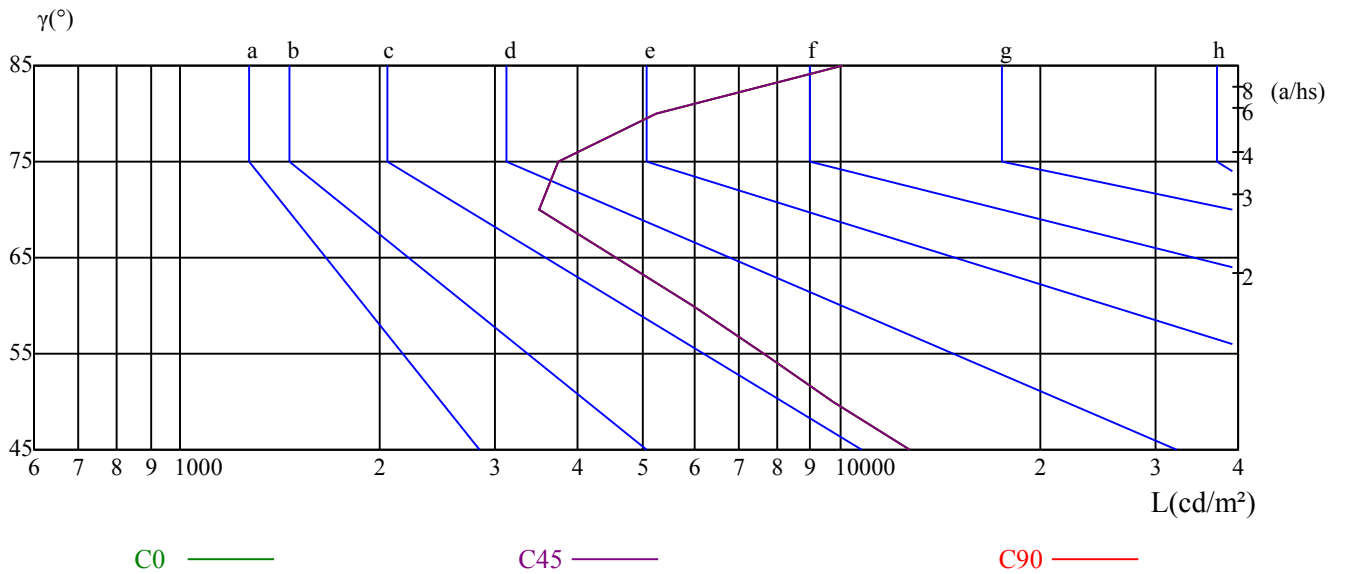
$\gamma$	45	50	55	60	65	70	75	80	85
C0	12687	9727	7666	5985	4571	3503	3747	5246	10068
C45	12687	9727	7666	5985	4571	3503	3747	5246	10068
C90	12687	9727	7666	5985	4571	3503	3747	5246	10068

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4571	4571	4571	3747	3747	3747	10068	10068	10068

Glare Table

Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	16.60	17.55	16.97	17.86	18.17	15.43	16.37	15.79	16.68	17.00
	3H	16.64	17.48	17.03	17.82	18.16	15.46	16.29	15.84	16.63	16.98
	4H	16.63	17.40	17.03	17.76	18.13	15.46	16.24	15.87	16.59	16.96
	6H	16.69	17.40	17.11	17.77	18.17	15.57	16.28	15.99	16.66	17.06
	8H	16.73	17.41	17.16	17.79	18.20	15.65	16.33	16.08	16.71	17.12
	12H	16.84	17.48	17.27	17.87	18.29	15.81	16.45	16.24	16.85	17.27
4H	2H	16.45	17.22	16.85	17.58	17.95	15.34	16.12	15.74	16.47	16.84
	3H	16.52	17.17	16.95	17.56	17.98	15.41	16.06	15.84	16.46	16.88
	4H	16.59	17.15	17.03	17.57	18.02	15.52	16.07	15.95	16.50	16.95
	6H	16.69	17.19	17.17	17.64	18.09	15.69	16.19	16.17	16.64	17.09
	8H	16.83	17.29	17.32	17.75	18.22	15.89	16.34	16.37	16.80	17.28
	12H	17.08	17.50	17.57	17.95	18.47	16.20	16.62	16.70	17.08	17.60
8H	4H	16.48	16.93	16.97	17.39	17.87	15.44	15.90	15.93	16.36	16.83
	6H	16.68	17.06	17.19	17.54	18.05	15.75	16.12	16.26	16.60	17.12
	8H	16.98	17.29	17.51	17.81	18.31	16.12	16.43	16.66	16.95	17.45
	12H	17.39	17.63	17.94	18.15	18.67	16.64	16.88	17.18	17.39	17.92
12H	4H	16.45	16.87	16.94	17.33	17.85	15.43	15.85	15.92	16.30	16.82
	6H	16.74	17.05	17.28	17.58	18.07	15.83	16.14	16.37	16.67	17.16
	8H	17.06	17.29	17.60	17.81	18.33	16.24	16.47	16.78	16.99	17.51
Variation with the observer position at spacings:											
S = 1.0H	3.8/-2.8					3.8/-2.8					
S = 1.5H	5.7/-3.1					5.7/-3.1					
S = 2.0H	7.2/-3.0					7.2/-3.0					
Standard tables:	BK3					BK3					
Uncorrected UGR	-2.6					-2.6					

依据CIE Publ. 117 计算 UGR, S/H = 0.25



lumini Solucoes em Iluminacao LTDA  
www.lumini.com.br  
Email:laboratorio@lumini.com.br  
Tel:+55 11 3437-5555 Fax:+55 11 3437-5555  
Address:Rua Ferreira Viana, 716 - Socorro - São Paulo/SP

---

## lumini

---

LumCAT:

Luminaire: focus sm a cob serie 2 e fc

LampCAT: modulo led 12.5W 3000K irc 90

Ballast type: led driver 350mA

Report No:

Voltage(V): 127.0000

Test No:

Current(A): 0.1100

Number of Lamps: 1

Power (W): 13.7400

Lamp flux(lm): 1550.0

PF: 0.9800

Length(mm): 55

Width(mm): 55

Phm Type: C

Height(mm): 0

---

## Photometric Results

---

Lumens(lm): 1152.05, Efficiency(%): 74.33% , Luminous Efficacy(lm/W): 83.85

Central intensity(cd): 4858.219, Maximum intensity(cd): 4858.219

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam angle of C0 plane : 23.24

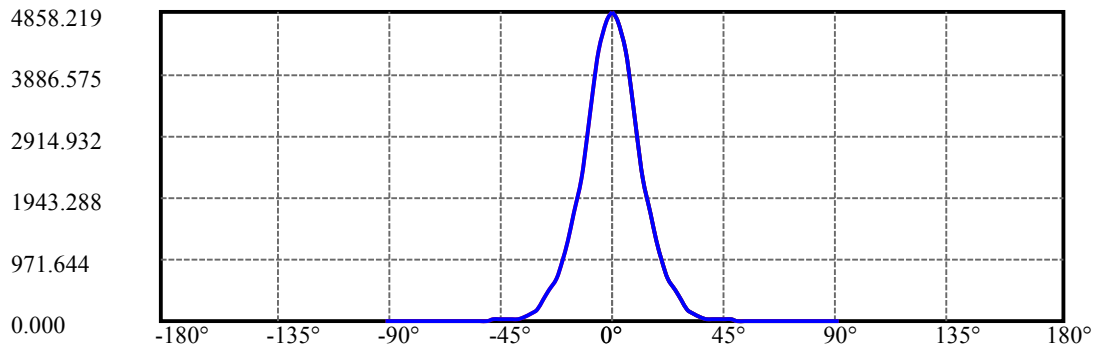
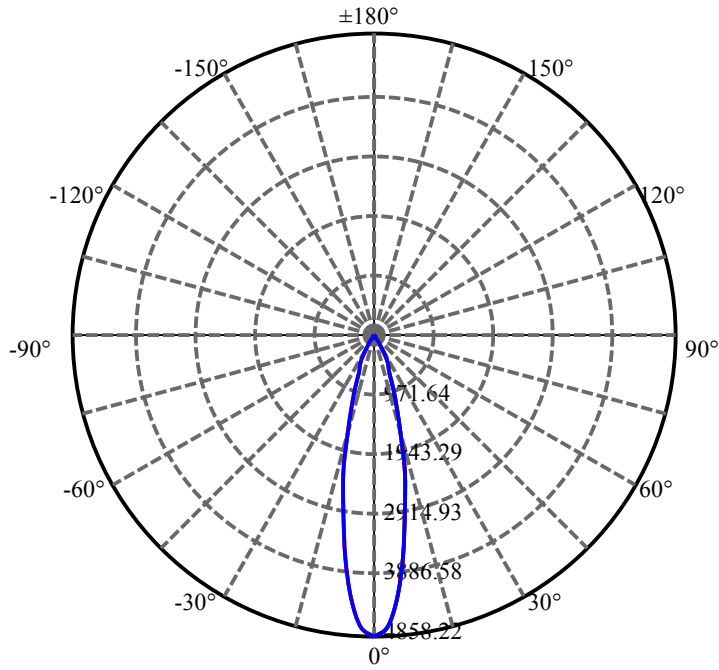
Aveage BeamAngle(IEC 61341):23.24

---

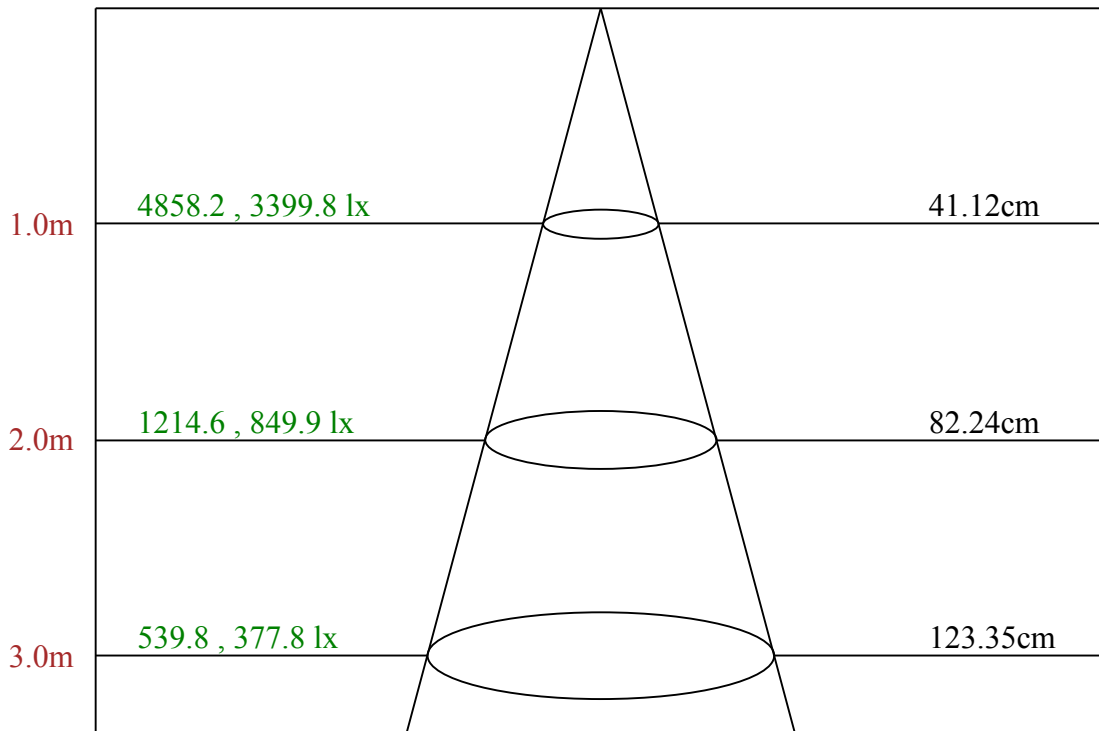
Equipment: equipamento lumini  
Temperature(°C): 25.5

Date: 5/9/2024  
Humidity(%): 55.0%

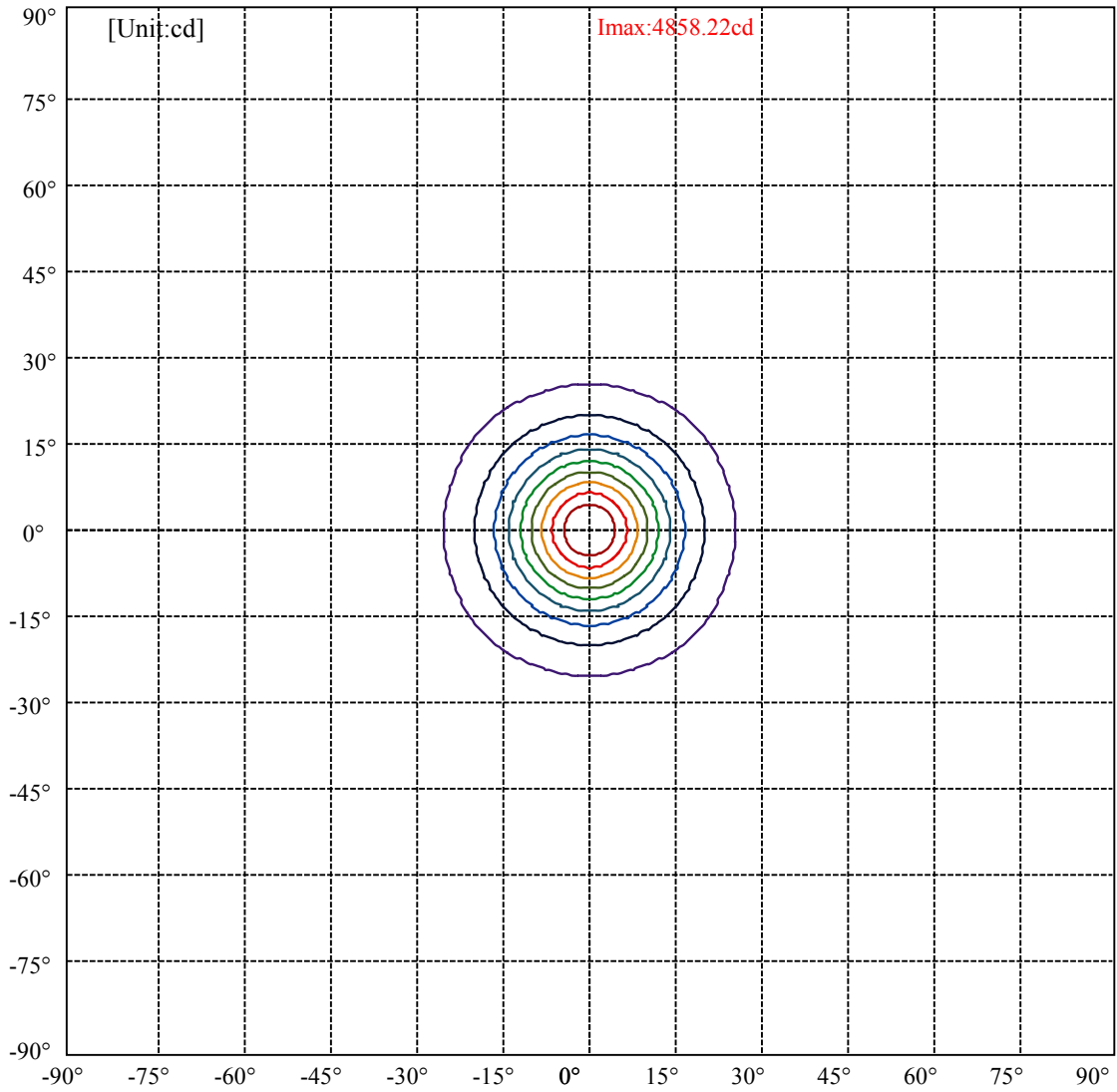
Operator: 01  
Distance(m): 6.90



C0(Max): —————  
C0/C180: —————  
C90/C270: —————



Max , Ave      Beam angle of C0 plane 23.24



(10%Imax) 485.822	—
(20%Imax) 971.644	—
(30%Imax) 1457.47	—
(40%Imax) 1943.29	—
(50%Imax) 2429.11	—
(60%Imax) 2914.93	—
(70%Imax) 3400.75	—
(80%Imax) 3886.58	—
(90%Imax) 4372.4	—

lumini

Luminance Limiting Curve(no luminous side)

Luminance Table

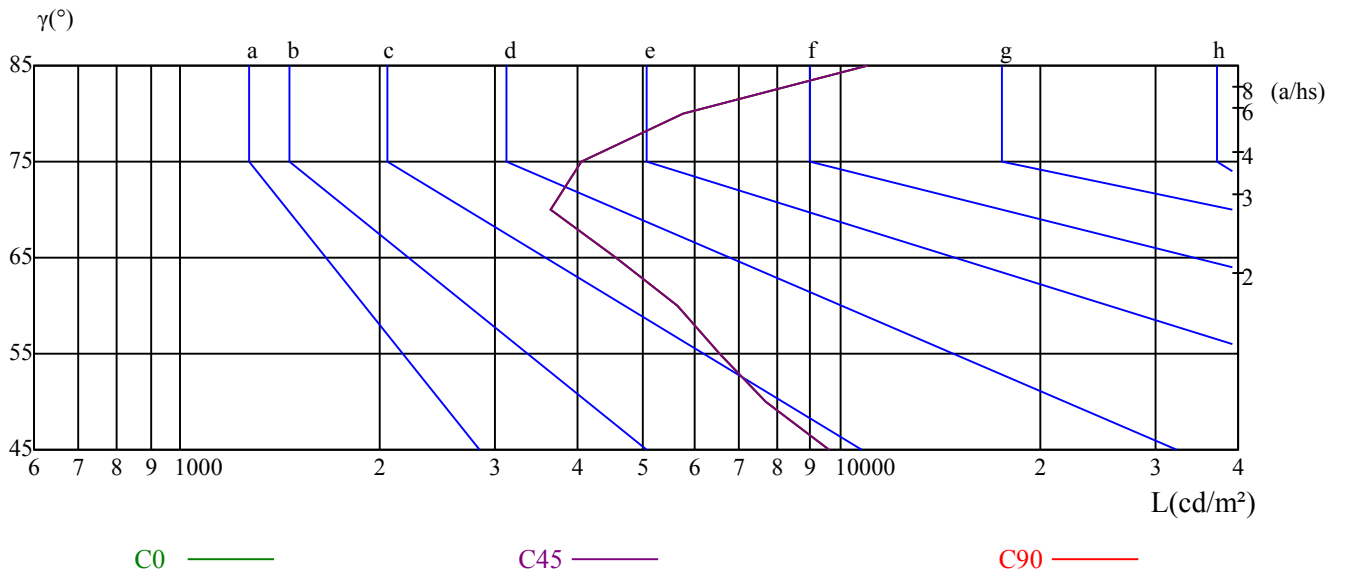
$\gamma$	45	50	55	60	65	70	75	80	85
C0	9588	7695	6538	5642	4567	3630	4051	5755	10970
C45	9588	7695	6538	5642	4567	3630	4051	5755	10970
C90	9588	7695	6538	5642	4567	3630	4051	5755	10970

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4567	4567	4567	4051	4051	4051	10970	10970	10970

Glare Table

Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve



Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	13.69	14.62	14.05	14.93	15.25	13.76	14.69	14.12	15.00	15.32
	3H	13.92	14.75	14.31	15.09	15.43	13.94	14.77	14.33	15.10	15.45
	4H	14.02	14.78	14.42	15.13	15.50	14.03	14.79	14.43	15.14	15.51
	6H	14.25	14.95	14.67	15.32	15.72	14.25	14.94	14.67	15.32	15.72
	8H	14.43	15.10	14.86	15.48	15.89	14.43	15.09	14.85	15.48	15.89
	12H	14.73	15.36	15.16	15.75	16.17	14.72	15.35	15.15	15.75	16.17
4H	2H	13.66	14.42	14.06	14.78	15.15	13.73	14.49	14.13	14.84	15.21
	3H	13.98	14.61	14.40	15.01	15.43	13.99	14.63	14.41	15.02	15.44
	4H	14.20	14.75	14.64	15.17	15.62	14.20	14.75	14.64	15.17	15.62
	6H	14.55	15.04	15.03	15.49	15.95	14.54	15.02	15.01	15.48	15.93
	8H	14.88	15.33	15.37	15.79	16.27	14.87	15.32	15.35	15.78	16.25
	12H	15.38	15.79	15.87	16.24	16.77	15.36	15.78	15.85	16.23	16.75
8H	4H	14.19	14.64	14.68	15.10	15.57	14.19	14.64	14.68	15.10	15.57
	6H	14.73	15.10	15.24	15.58	16.09	14.72	15.09	15.23	15.57	16.08
	8H	15.28	15.59	15.82	16.11	16.61	15.27	15.57	15.80	16.10	16.60
	12H	16.02	16.25	16.57	16.77	17.30	16.01	16.24	16.55	16.76	17.28
12H	4H	14.19	14.61	14.68	15.06	15.58	14.19	14.61	14.68	15.06	15.58
	6H	14.86	15.16	15.39	15.69	16.18	14.84	15.15	15.38	15.67	16.17
	8H	15.46	15.69	16.01	16.21	16.74	15.45	15.68	15.99	16.20	16.72
Variation with the observer position at spacings:											
S = 1.0H	3.2/-1.9					3.2/-1.9					
S = 1.5H	4.6/-2.1					4.6/-2.1					
S = 2.0H	5.7/-2.0					5.7/-2.0					
Standard tables:	BK4					BK4					
Uncorrected UGR	-3.4					-3.4					

依据CIE Publ. 117 计算 UGR, S/H = 0.25



lumini Solucoes em Iluminacao LTDA  
www.lumini.com.br  
Email:laboratorio@lumini.com.br  
Tel:+55 11 3437-5555 Fax:+55 11 3437-5555  
Address:Rua Ferreira Viana, 716 - Socorro - São Paulo/SP

---

## lumini

---

LumCAT:

Luminaire: focus sm a cob serie 2 e fm

LampCAT: modulo led 12.5W 3000K irc 90

Ballast type: led driver 350mA

Report No:

Voltage(V): 127.0000

Test No:

Current(A): 0.1100

Number of Lamps: 1

Power (W): 13.7400

Lamp flux(lm): 1550.0

PF: 0.9800

Length(mm): 55

Width(mm): 55

Phm Type: C

Height(mm): 0

---

## Photometric Results

---

Lumens(lm): 1095.57, Efficiency(%): 70.68% , Luminous Efficacy(lm/W): 79.74

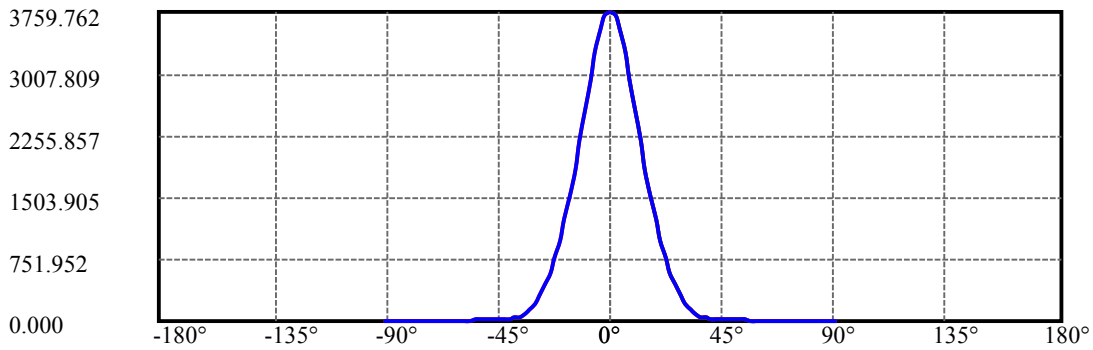
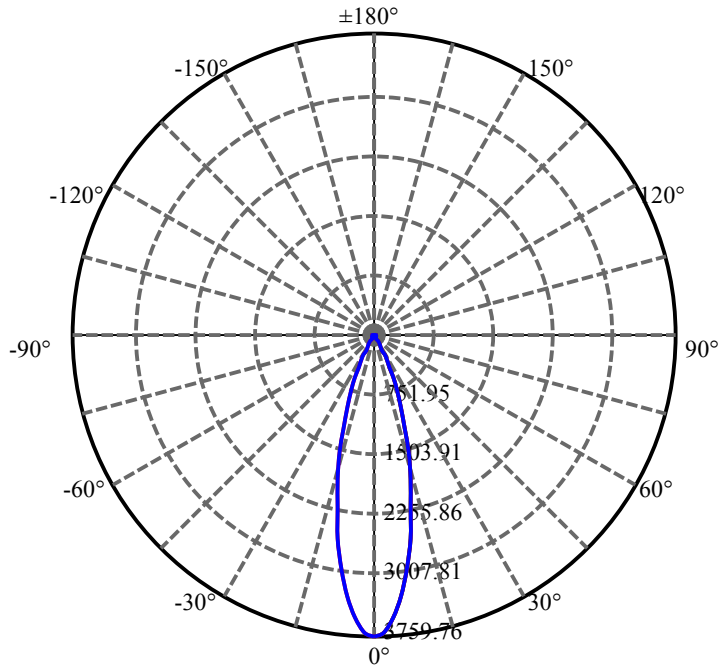
Central intensity(cd): 3759.762, Maximum intensity(cd): 3759.762

Angle of maximum intensity:  $C=0.0$   $\gamma=0.0$

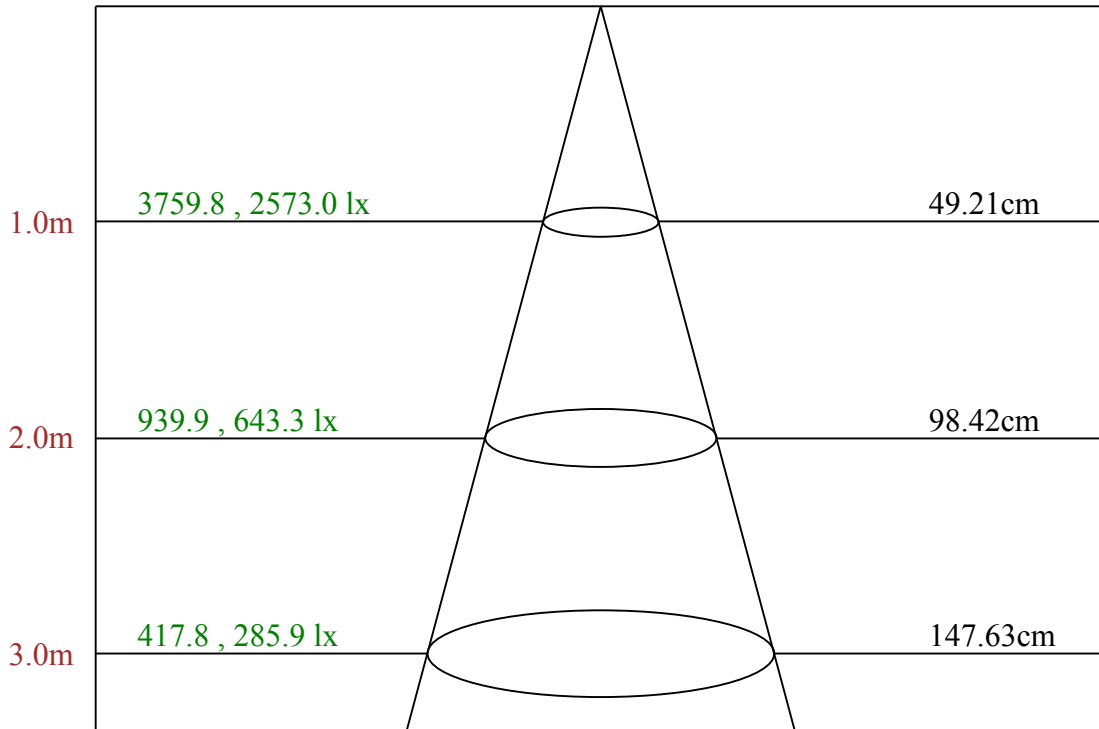
Beam angle of C0 plane : 27.65

Aveage BeamAngle(IEC 61341):27.65

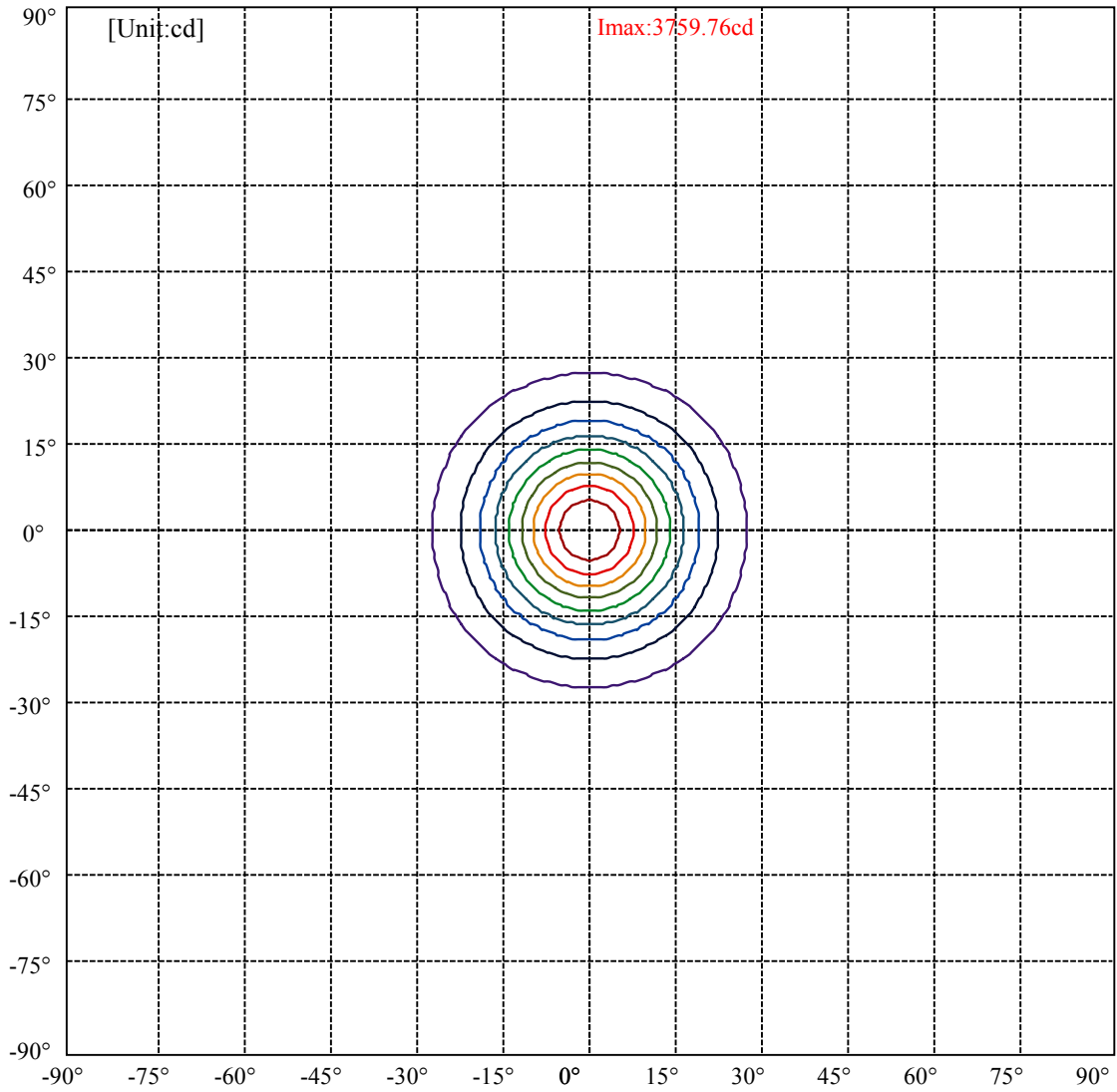




C0(Max): —  
C0/C180: —  
C90/C270: —



Max , Ave      Beam angle of C0 plane 27.65



(10%Imax) 375.976	—
(20%Imax) 751.952	—
(30%Imax) 1127.93	—
(40%Imax) 1503.9	—
(50%Imax) 1879.88	—
(60%Imax) 2255.86	—
(70%Imax) 2631.83	—
(80%Imax) 3007.81	—
(90%Imax) 3383.79	—

lumini

Luminance Limiting Curve(no luminous side)

Luminance Table

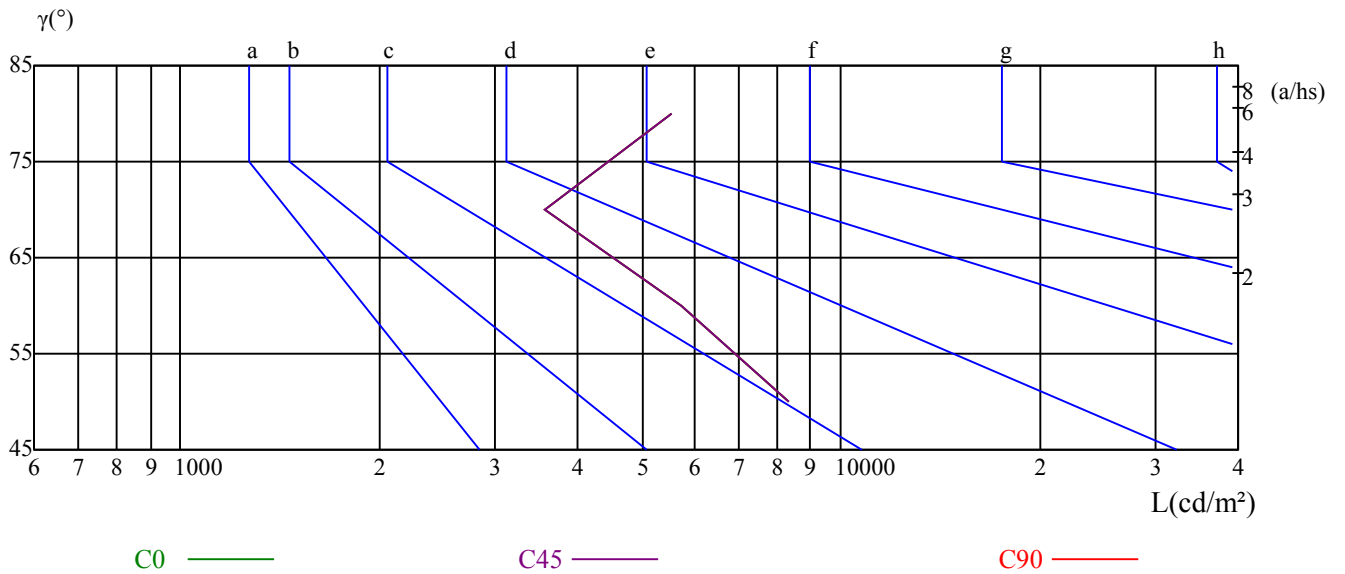
$\gamma$	45	50	55	60	65	70	75	80	85
C0	0	8359	0	5733	0	3572	0	5529	0
C45	0	8359	0	5733	0	3572	0	5529	0
C90	0	8359	0	5733	0	3572	0	5529	0

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4567	4567	4567	4051	4051	4051	10970	10970	10970

Glare Table

Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve



Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	14.44	15.37	14.80	15.68	16.00	14.49	15.42	14.85	15.73	16.05
	3H	14.59	15.42	14.98	15.76	16.11	14.65	15.48	15.03	15.81	16.16
	4H	14.64	15.41	15.05	15.77	16.13	14.70	15.46	15.10	15.82	16.19
	6H	14.83	15.53	15.24	15.90	16.30	14.87	15.57	15.29	15.95	16.35
	8H	14.97	15.63	15.39	16.02	16.43	15.01	15.68	15.43	16.06	16.47
	12H	15.20	15.83	15.63	16.23	16.64	15.24	15.87	15.67	16.27	16.69
4H	2H	14.39	15.16	14.79	15.51	15.88	14.44	15.21	14.84	15.56	15.93
	3H	14.61	15.25	15.04	15.65	16.07	14.66	15.30	15.08	15.70	16.11
	4H	14.77	15.33	15.21	15.75	16.20	14.82	15.37	15.26	15.80	16.25
	6H	15.05	15.54	15.53	16.00	16.45	15.09	15.58	15.57	16.04	16.49
	8H	15.33	15.78	15.82	16.24	16.72	15.37	15.82	15.85	16.28	16.75
	12H	15.74	16.16	16.23	16.61	17.13	15.78	16.19	16.27	16.65	17.17
8H	4H	14.73	15.19	15.22	15.65	16.12	14.78	15.23	15.27	15.69	16.17
	6H	15.18	15.55	15.69	16.03	16.54	15.22	15.59	15.72	16.07	16.58
	8H	15.66	15.97	16.19	16.49	16.99	15.69	16.00	16.22	16.52	17.02
	12H	16.29	16.53	16.84	17.05	17.57	16.32	16.56	16.87	17.07	17.60
12H	4H	14.73	15.15	15.22	15.60	16.12	14.77	15.19	15.27	15.64	16.17
	6H	15.29	15.59	15.82	16.12	16.62	15.32	15.63	15.86	16.15	16.65
	8H	15.81	16.04	16.35	16.56	17.08	15.83	16.07	16.38	16.59	17.11
Variation with the observer position at spacings:											
S = 1.0H	3.4/-2.2					3.4/-2.2					
S = 1.5H	5.0/-2.3					5.0/-2.3					
S = 2.0H	6.3/-2.3					6.3/-2.3					
Standard tables:	BK3					BK3					
Uncorrected UGR	-3.4					-3.4					

依据CIE Publ. 117 计算 UGR, S/H = 0.25

focus

focus sm a cob série 2 e	nicho
focus sm b cob série 2 e	96x96mm
focus sm a série 3 e	96x183mm
focus sm b bath série 3 e	96x96mm
focus sm b série 3 e	96x183mm
focus sm b difusa série 2 e	96x183mm
focus sm a bath série 3 e	96x96mm
focus sm a difusa série 2 e	96x96mm
focus xsm a e	62x62mm
focus sm a dtw e	96x96mm
focus sm a e tr	96x96mm
focus sm b dtw e	96x183mm
focus sm b e tr	96x183mm

especificações técnicas

fonte de luz  
módulo led integrado (incluso)

índice de proteção  
IP20 - luminária para uso interno

peso  
focus sm a cob série 2 e - 0,6 kg  
focus sm b cob série 2 e - 1,1 kg  
focus sm a série 3 e - 0,5 kg  
focus sm b bath série 3 e - 0,4 kg  
focus sm b série 3 e - 0,8 kg  
focus sm b difusa série 2 e - 0,8 kg  
focus sm a bath série 3 e - 0,4 kg  
focus sm a difusa série 2 e - 0,5 kg  
focus xsm a e - 0,3 kg  
focus sm a dtw e - 0,5 kg  
focus sm a e tr - 0,5 kg  
focus sm b dtw e - 0,8 kg  
focus sm b e tr - 0,8 kg

cuidados com o produto  
o produto deve ser manuseado com cuidado para evitar riscos e deformações.

para limpeza, utilize detergente neutro e um pano de algodão macio. finalize com um pano de algodão seco.

instalação

conteúdo da embalagem  
1 luminária

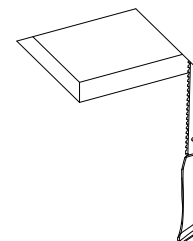
ferramentas necessárias  
serra

informações importantes  
para a instalação, lave as mãos e seque as mãos, use luvas descartáveis.

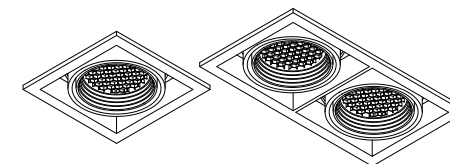
antes de iniciar a instalação, certifique-se que a energia elétrica esteja desligada.

retire a luminária da embalagem com cuidado e apoie-o em uma superfície limpa e seca.

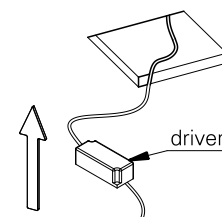
1. faça um nicho no forro conforme o modelo do produto na tabela.



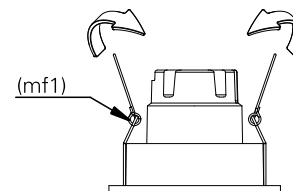
5. a luminária após instalada deverá ficar como ilustrado na imagem. ligue a rede elétrica e teste o seu funcionamento.



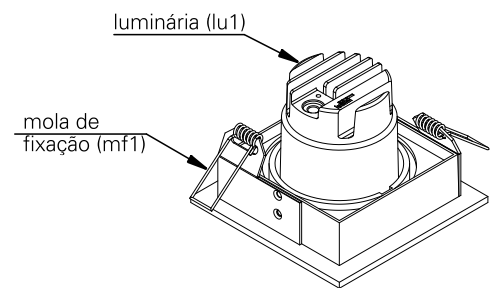
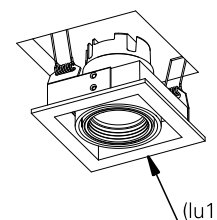
2. aloje o driver sobre o forro. faça a ligação elétrica. isole os fios separadamente com fita isolante. repita a operação envolvendo o conjunto dos fios, vedando completamente a emenda. obs: drivers não se aplicam para versões tr



3. levante as molas de fixação (mf1) conforme a ilustração abaixo.



4. segurando as molas de fixação, encaixe a luminária (lu1) no nicho.



atenção

leia atentamente todas as instruções relacionadas ao seu produto antes de utilizá-lo.

antes de iniciar a instalação, certifique-se que a energia elétrica esteja desligada.

não são permitidas modificações no produto, esse deve atender à finalidade para a qual foi projetado e ser utilizado de acordo com as especificações técnicas.

em caso de dúvidas, entre em contato com o fabricante.