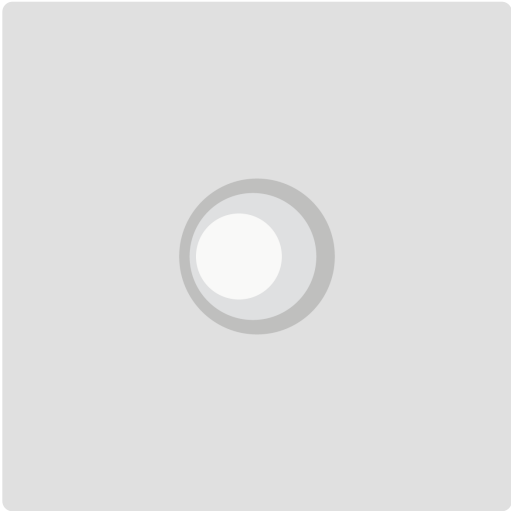




downled sm r pro cob ww flex e

linha de luminárias embutidas circulares para iluminação geral. difusor de alta trans-
mitância, dissipador em alumínio injetado, controle antiofuscamento através do próprio
refletor e moldura em alumínio. fixação por meio de molas em aço inox.

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	c	2700		
12,5	m	2700		
12,5	a	2700		
12,5	c	3000	1550	775
12,5	m	3000	1550	768
12,5	a	3000	1550	702
12,5	c	4000		
12,5	m	4000		
12,5	a	4000		

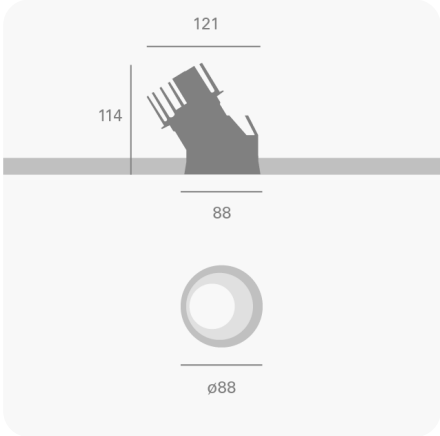
equipamentos
LED driver 350mA (incluso, ponto remoto)

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

instalação
forro de gesso
marcenaria

IP
20

dimensões



acabamentos e cores

cores



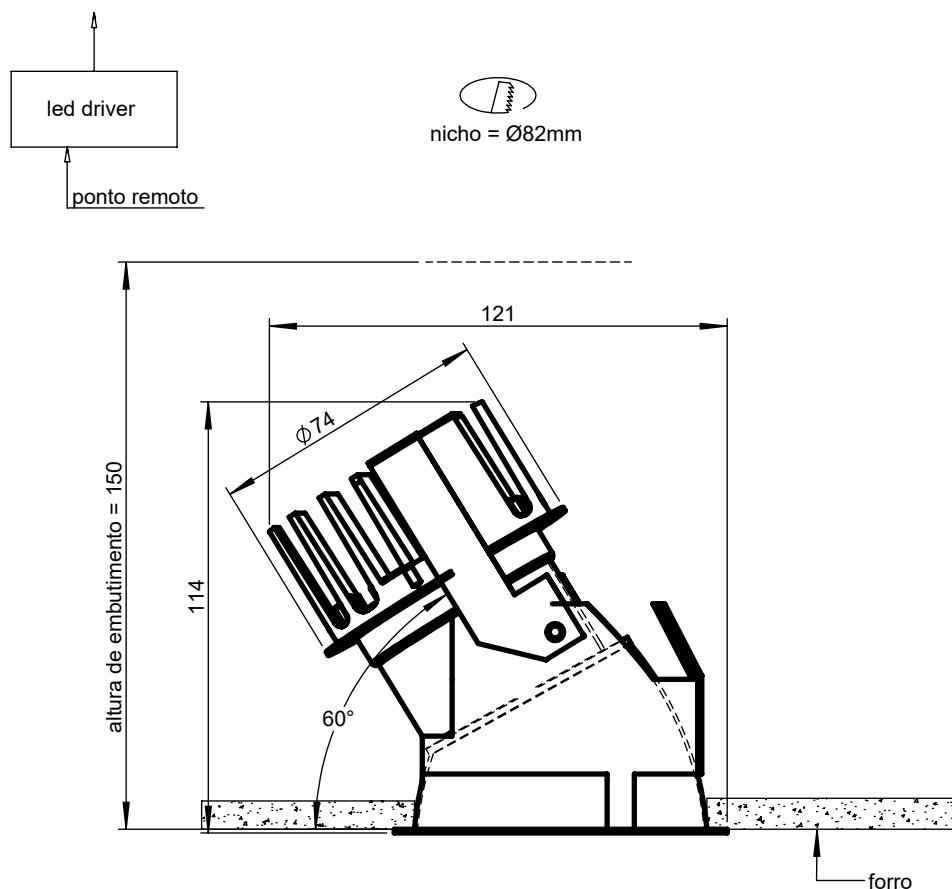
preto txt



branco txt

vista lateral

dimensões em milímetros



downled cob pro ww flex

folha
1/1

escala
1:2

data
13/11/2024

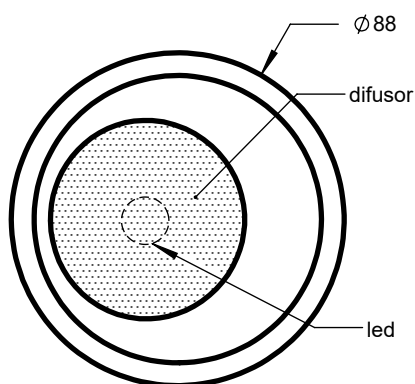
desenhista
joao ferreira

aprovação
edmilson

revisões
13/11/2024

vista inferior

dimensões em milímetros



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



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LumCAT:

Luminaire: downled sm r pro cob ww flex e fa

LampCAT: modulo led 12.5W 3000K irc 90

Ballast type: led driver 350mA

Report No:

Voltage(V): 221.0000

Test No:

Current(A): 0.0830

Number of Lamps: 1

Power (W): 14.7000

Lamp flux(lm): 1550.0

PF: 0.8000

Length(mm): 75

Width(mm): 75

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 702.42, Efficiency(%): 45.32% , Luminous Efficacy(lm/W): 47.78

Central intensity(cd): 511.046, Maximum intensity(cd): 544.087

Angle of maximum intensity: C=90.0 $\gamma=7.5$

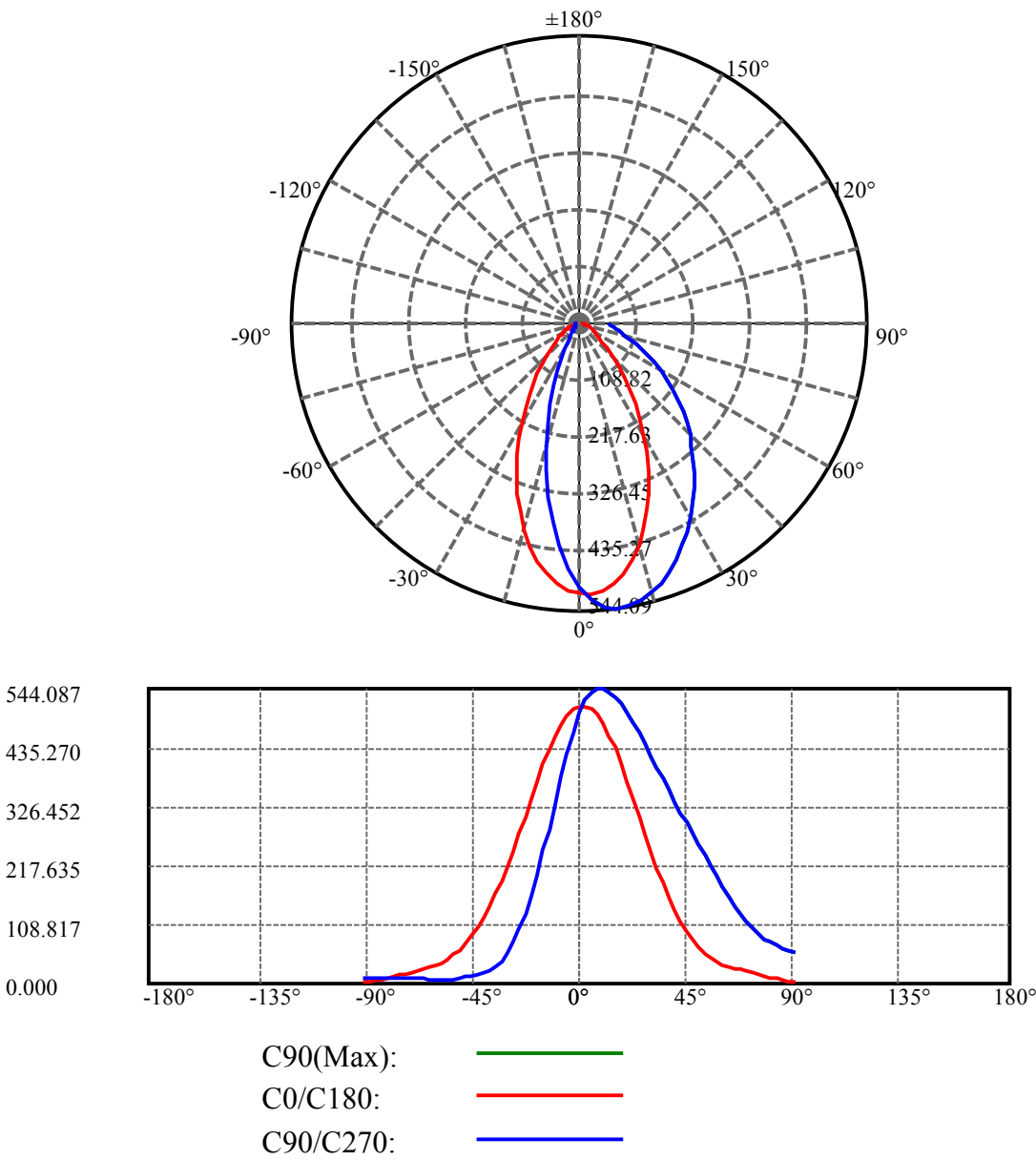
Beam angle of C90 plane : 61.18

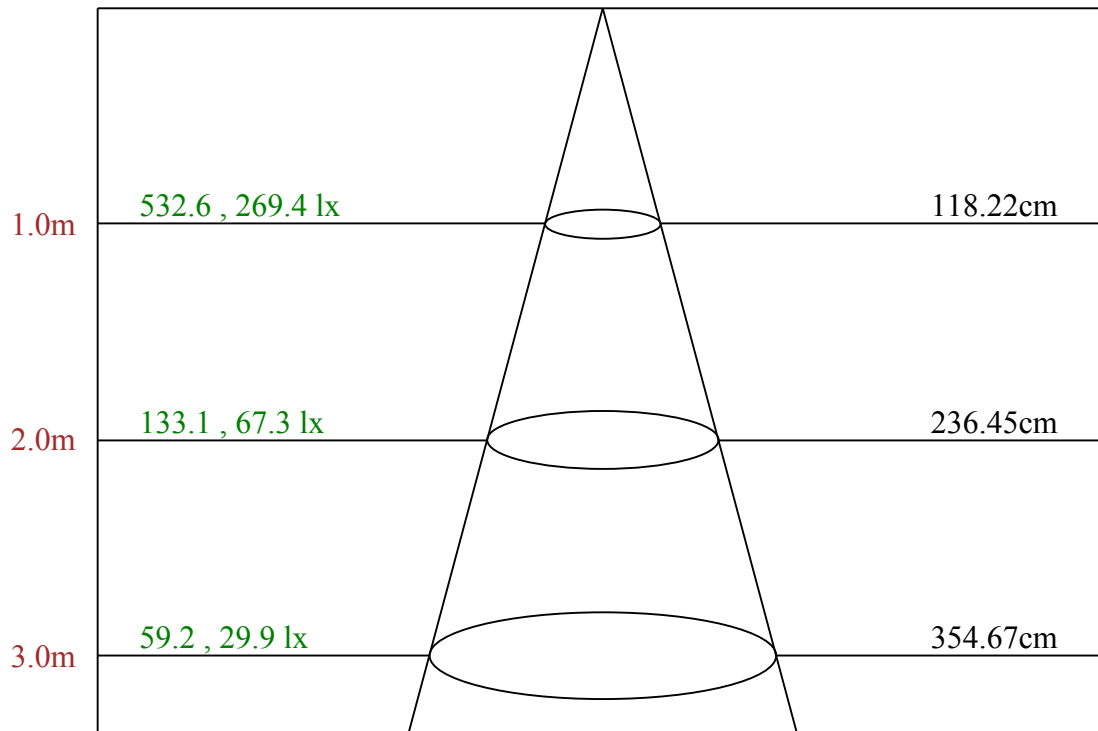
Aveage BeamAngle(IEC 61341):55.86

Equipment: equipamento lumini
Temperature(°C): 25.5

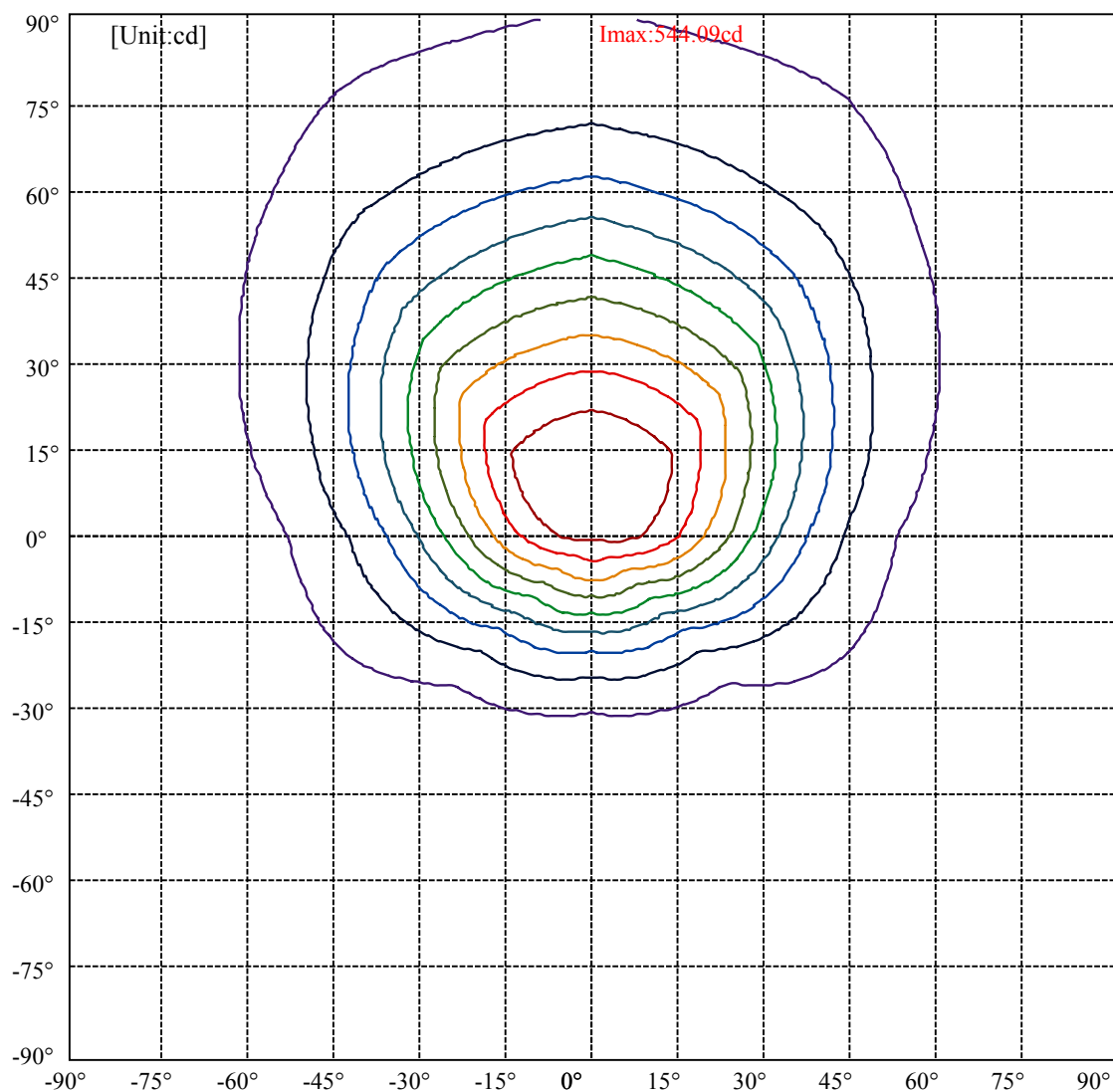
Date: 5/24/2024
Humidity(%): 55.0%

Operator: 01
Distance(m): 6.90





Max , Ave Beam angle of C90 plane 61.18



(10%Imax)	54.3782	—
(20%Imax)	108.756	—
(30%Imax)	163.135	—
(40%Imax)	217.513	—
(50%Imax)	271.891	—
(60%Imax)	326.269	—
(70%Imax)	380.648	—
(80%Imax)	435.026	—
(90%Imax)	489.404	—

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Luminance Limiting Curve(no luminous side)

Appendix Page: 5 Total:6

Luminance Table

γ	45	50	55	60	65	70	75	80	85
C0	23880	18659	14329	12137	11896	11879	11904	11893	12916
C45	62244	55686	49331	44267	40115	38655	42938	54786	90607
C90	74620	71369	67186	63362	59622	59170	62527	77939	134017

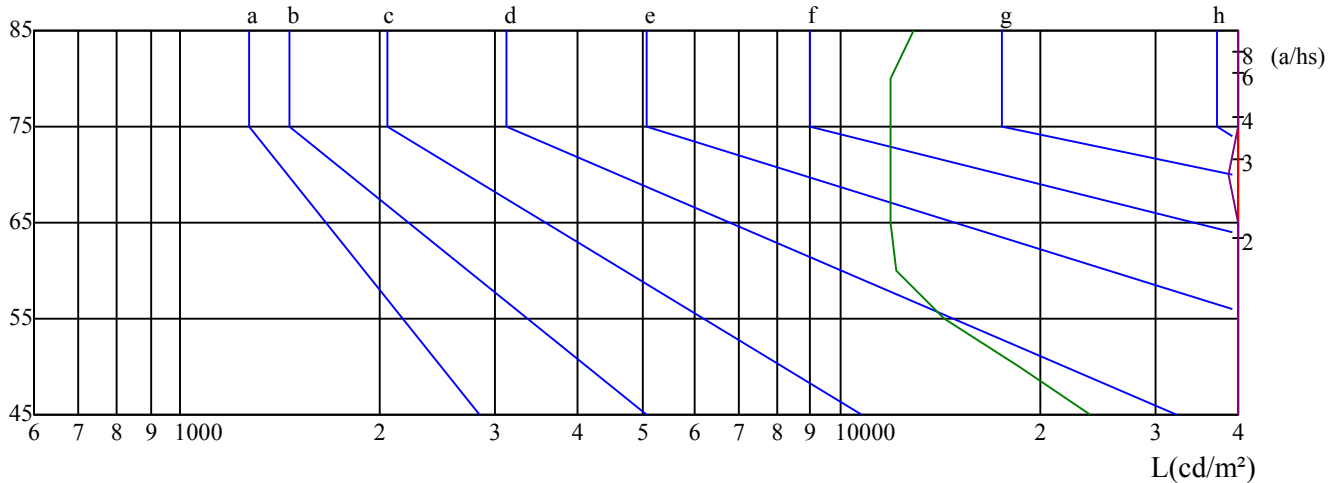
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
11666	31704	22231	11413	34648	24290	11702	76040	53121

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

$\gamma(^{\circ})$



C0 ———

C45 ———

C90 ———

Equipment: equipamento lumini
Temperature($^{\circ}\text{C}$): 25.5

Date: 5/24/2024
Humidity(%): 55.0%

Operator: 01
Distance(m): 6.90

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	35.79	37.74	36.15	38.05	38.37	35.89	37.84	36.25	38.15	38.47
	3H	39.37	41.20	39.75	41.52	41.87	39.49	41.32	39.87	41.64	41.99
	4H	41.29	43.05	41.68	43.39	43.75	41.42	43.18	41.81	43.52	43.88
	6H	43.43	45.09	43.84	45.45	45.84	43.57	45.23	43.98	45.59	45.97
	8H	44.61	46.21	45.02	46.60	46.99	44.75	46.36	45.17	46.74	47.13
	12H	46.48	48.04	46.91	48.42	48.84	46.63	48.19	47.06	48.57	48.99
4H	2H	36.88	38.64	37.27	38.98	39.34	36.95	38.71	37.34	39.05	39.41
	3H	40.69	42.24	41.09	42.63	43.03	40.78	42.34	41.18	42.72	43.12
	4H	42.77	44.23	43.20	44.63	45.06	42.88	44.33	43.30	44.74	45.16
	6H	45.09	46.41	45.52	46.84	47.27	45.20	46.53	45.64	46.96	47.39
	8H	46.37	47.63	46.81	48.06	48.52	46.49	47.76	46.94	48.19	48.64
	12H	48.15	49.32	48.62	49.78	50.24	48.28	49.46	48.75	49.92	50.37
8H	4H	43.65	44.91	44.09	45.34	45.79	43.73	44.99	44.17	45.42	45.87
	6H	46.21	47.32	46.68	47.79	48.25	46.30	47.42	46.78	47.88	48.34
	8H	47.67	48.69	48.15	49.18	49.65	47.77	48.80	48.26	49.28	49.75
	12H	49.56	50.49	50.05	50.97	51.51	49.68	50.61	50.17	51.09	51.62
12H	4H	43.93	45.11	44.40	45.57	46.02	44.00	45.18	44.47	45.63	46.09
	6H	48.80	47.63	47.10	48.07	48.60	48.88	47.71	47.18	48.15	48.68
	8H	48.18	49.11	48.67	49.59	50.12	48.27	49.20	48.76	49.68	50.21

依据CIE Publ. 190 计算 UGR, S/H = 1



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LumCAT:

Luminaire: downled sm r pro cob ww flex e fc

LampCAT: modulo led 12.5W 3000K irc 90

Ballast type: led driver 350mA

Report No:

Voltage(V): 221.0000

Test No:

Current(A): 0.0830

Number of Lamps: 1

Power (W): 14.8000

Lamp flux(lm): 1550.0

PF: 0.8000

Length(mm): 75

Width(mm): 75

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 774.69, Efficiency(%): 49.98% , Luminous Efficacy(lm/W): 52.34

Central intensity(cd): 624.215, Maximum intensity(cd): 628.881

Angle of maximum intensity: C=90.0 $\gamma=2.5$

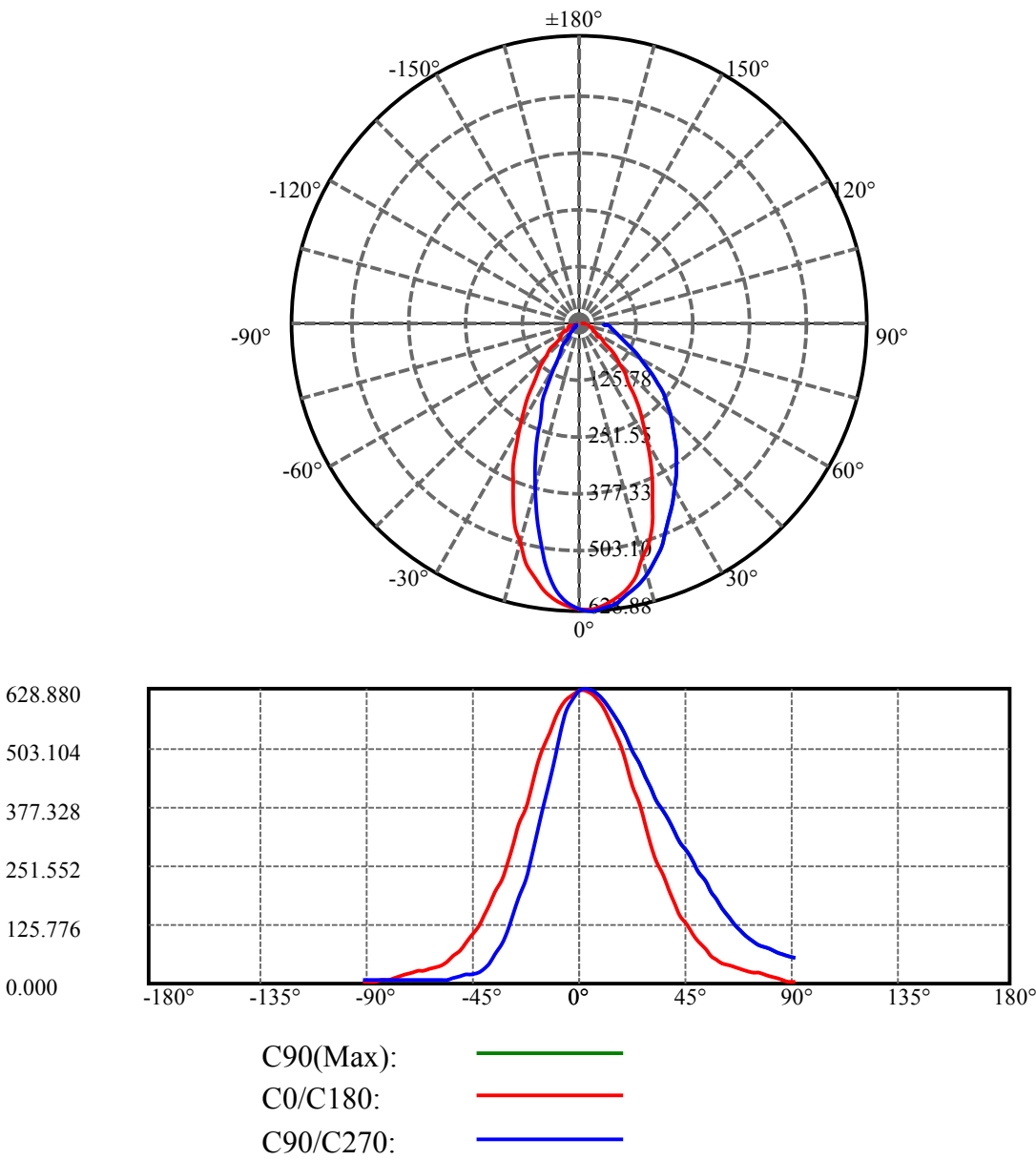
Beam angle of C90 plane : 59.26

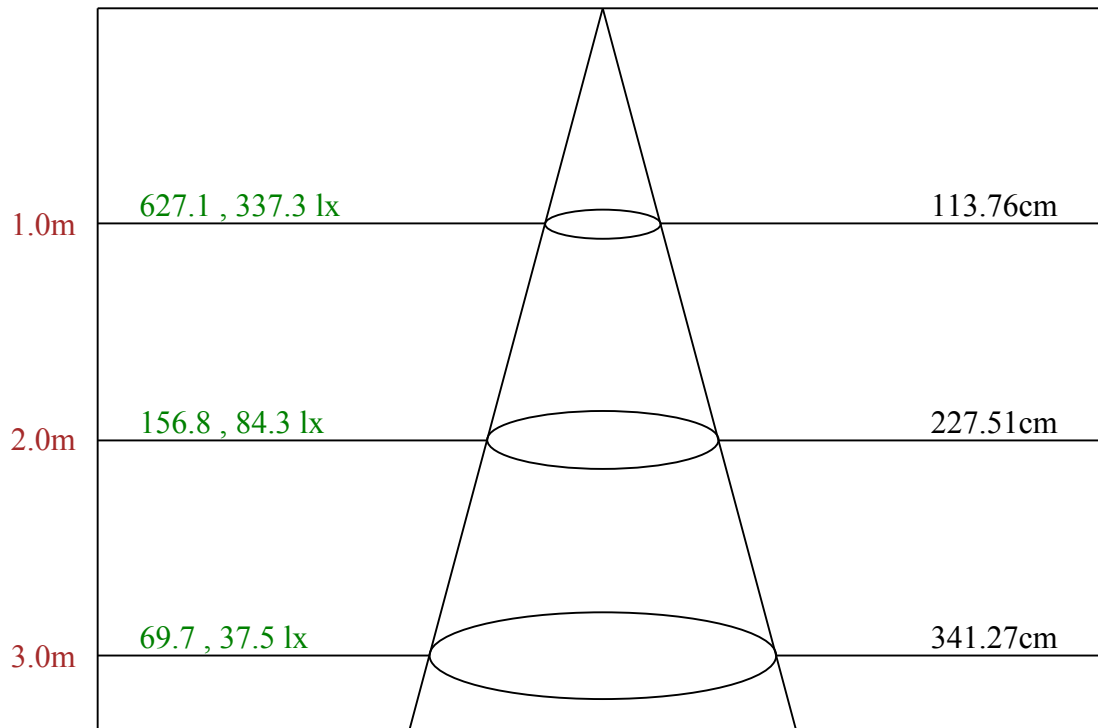
Average BeamAngle(IEC 61341): 59.26

Equipment: equipamento lumini
Temperature(°C): 25.5

Date: 5/24/2024
Humidity(%): 55.0%

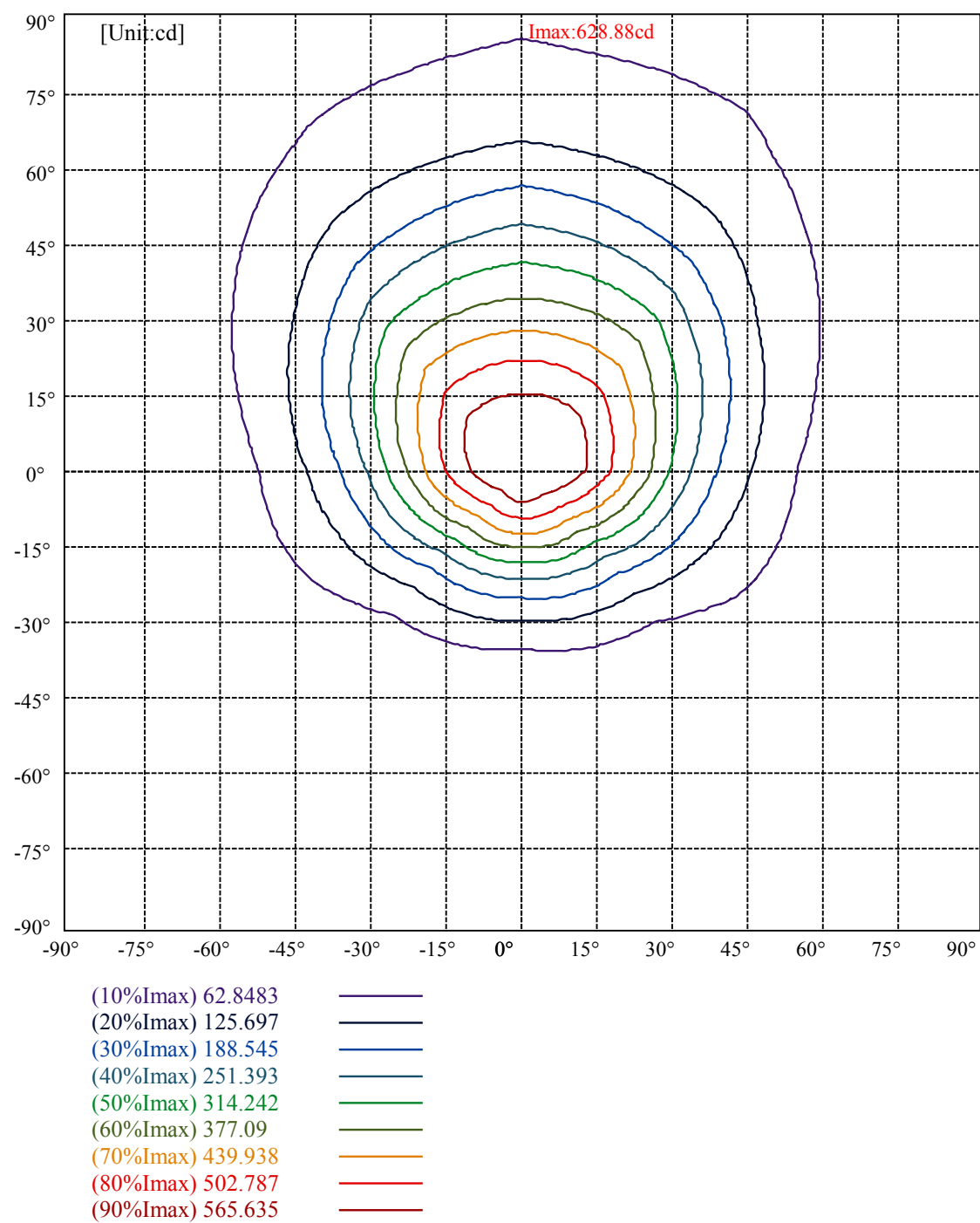
Operator: 01
Distance(m): 6.90





Max , Ave

Beam angle of C90 plane 59.26



Luminance Table

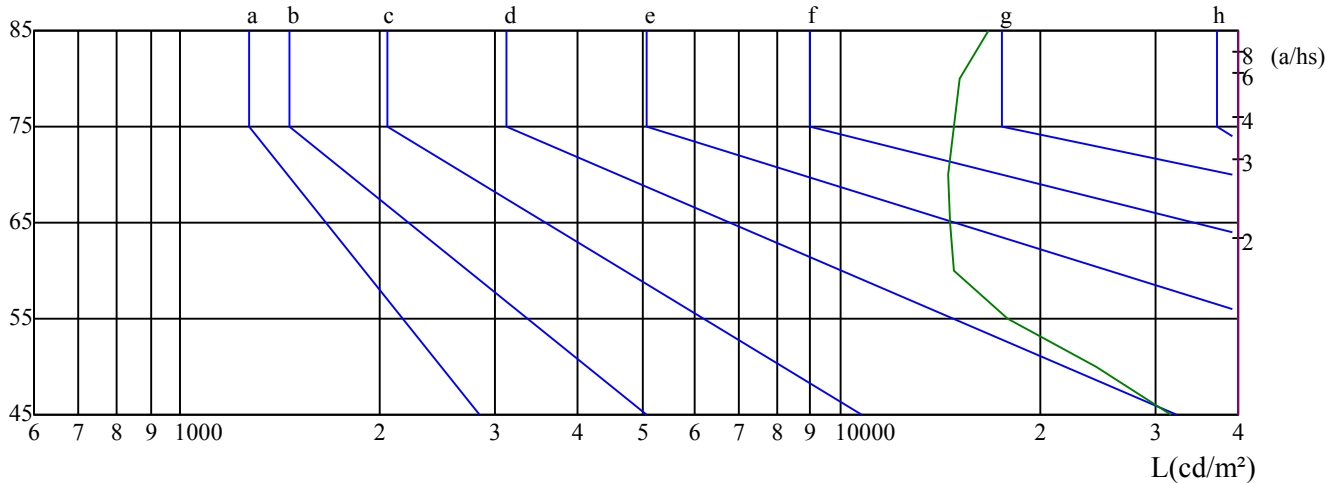
γ	45	50	55	60	65	70	75	80	85
C0	31589	24307	17929	14863	14600	14502	14814	15159	16704
C45	63105	55238	49641	44504	40696	40264	45456	57662	91772
C90	70946	66167	61136	56455	52532	52786	57589	75502	128481

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
13328	27808	21084	12917	32097	23987	12576	72495	50256

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

 $\gamma(^{\circ})$ 

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	24.39	25.81	24.75	26.13	26.44	27.79	29.21	28.15	29.52	29.84
	3H	25.15	26.44	25.54	26.78	27.12	29.33	30.61	29.71	30.95	31.29
	4H	25.52	26.72	25.91	27.07	27.44	30.14	31.35	30.54	31.70	32.06
	6H	25.88	26.99	26.28	27.36	27.76	31.19	32.30	31.59	32.67	33.07
	8H	25.99	27.07	26.41	27.45	27.85	31.78	32.86	32.19	33.24	33.64
	12H	26.09	27.12	26.50	27.51	27.92	32.48	33.52	32.90	33.90	34.32
4H	2H	25.50	26.71	25.90	27.06	27.42	28.12	29.33	28.52	29.68	30.04
	3H	26.58	27.60	26.99	27.99	28.40	29.88	30.91	30.30	31.29	31.70
	4H	27.20	28.11	27.63	28.52	28.96	30.95	31.86	31.38	32.27	32.71
	6H	27.72	28.53	28.18	28.97	29.42	32.19	33.01	32.66	33.45	33.89
	8H	27.94	28.71	28.42	29.15	29.62	32.95	33.72	33.43	34.16	34.63
	12H	28.13	28.84	28.61	29.29	29.79	33.84	34.55	34.32	34.99	35.50
8H	4H	28.08	28.84	28.55	29.29	29.75	31.19	31.95	31.66	32.40	32.86
	6H	28.96	29.61	29.45	30.07	30.57	32.68	33.33	33.18	33.80	34.30
	8H	29.44	30.00	29.95	30.51	31.00	33.67	34.24	34.19	34.75	35.24
	12H	29.81	30.29	30.34	30.80	31.31	34.79	35.27	35.32	35.78	36.29
12H	4H	28.33	29.04	28.81	29.49	29.99	31.21	31.93	31.69	32.37	32.87
	6H	29.47	30.03	29.98	30.54	31.03	32.84	33.40	33.35	33.91	34.40
	8H	30.06	30.54	30.59	31.05	31.56	33.87	34.35	34.40	34.86	35.37
Variation with the observer position at spacings:											
S = 1.0H		0.2/-0.8					0.6/-0.8				
S = 1.5H		0.4/-0.7					0.8/-1.2				
S = 2.0H		0.3/-0.7					1.2/-1.3				
Standard tables:		BKBF					BKFF				
Uncorrected UGR		17.6					12.5				

依据CIE Publ. 117 计算 UGR, S/H = 0.25



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LumCAT:

Luminaire: downled sm r pro cob ww flex e fm

LampCAT: modulo led 12.5W 3000K irc 90

Ballast type: led driver 350mA

Report No:

Voltage(V): 221.0000

Test No:

Current(A): 0.0830

Number of Lamps: 1

Power (W): 14.8000

Lamp flux(lm): 1550.0

PF: 0.8000

Length(mm): 75

Width(mm): 75

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 767.70, Efficiency(%): 49.53% , Luminous Efficacy(lm/W): 51.87

Central intensity(cd): 596.172, Maximum intensity(cd): 616.597

Angle of maximum intensity: C=90.0 γ =5.0

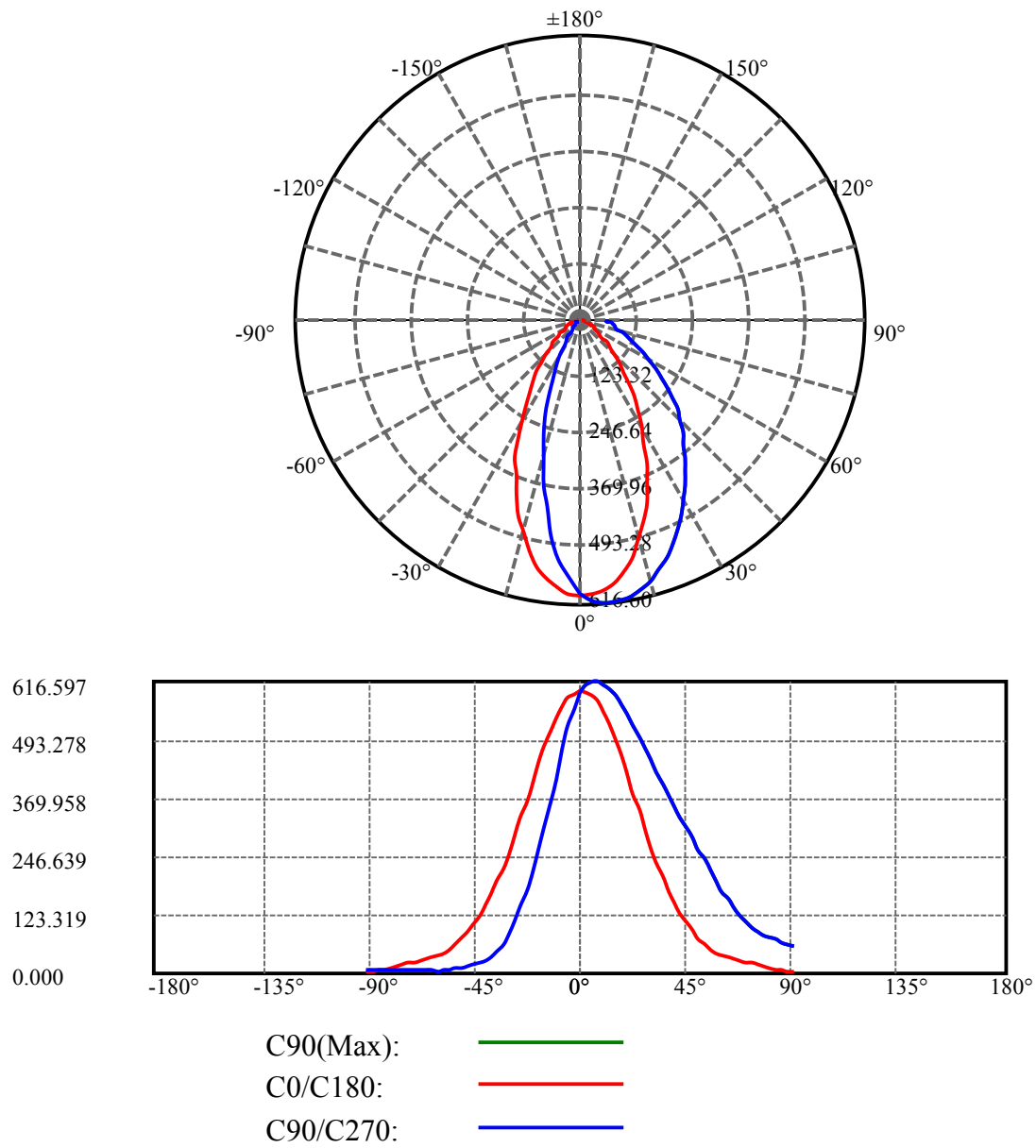
Beam angle of C90 plane : 59.86

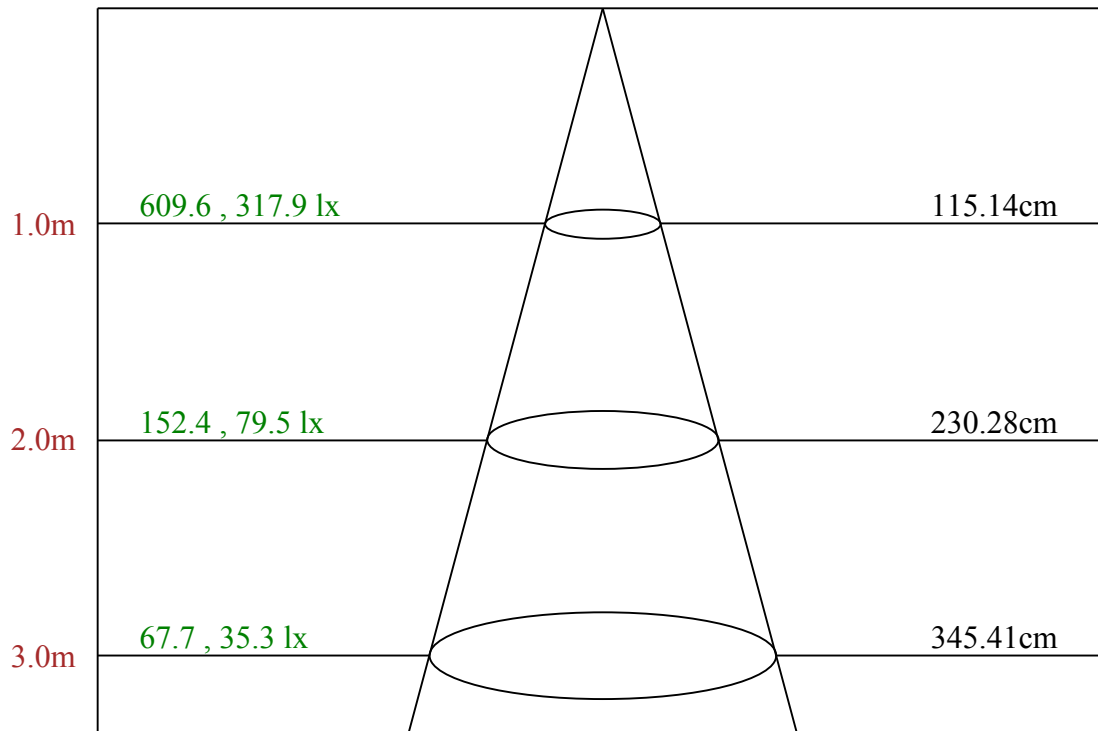
Average BeamAngle(IEC 61341): 59.86

Equipment: equipamento lumini
Temperature(°C): 25.5

Date: 5/27/2024
Humidity(%): 55.0%

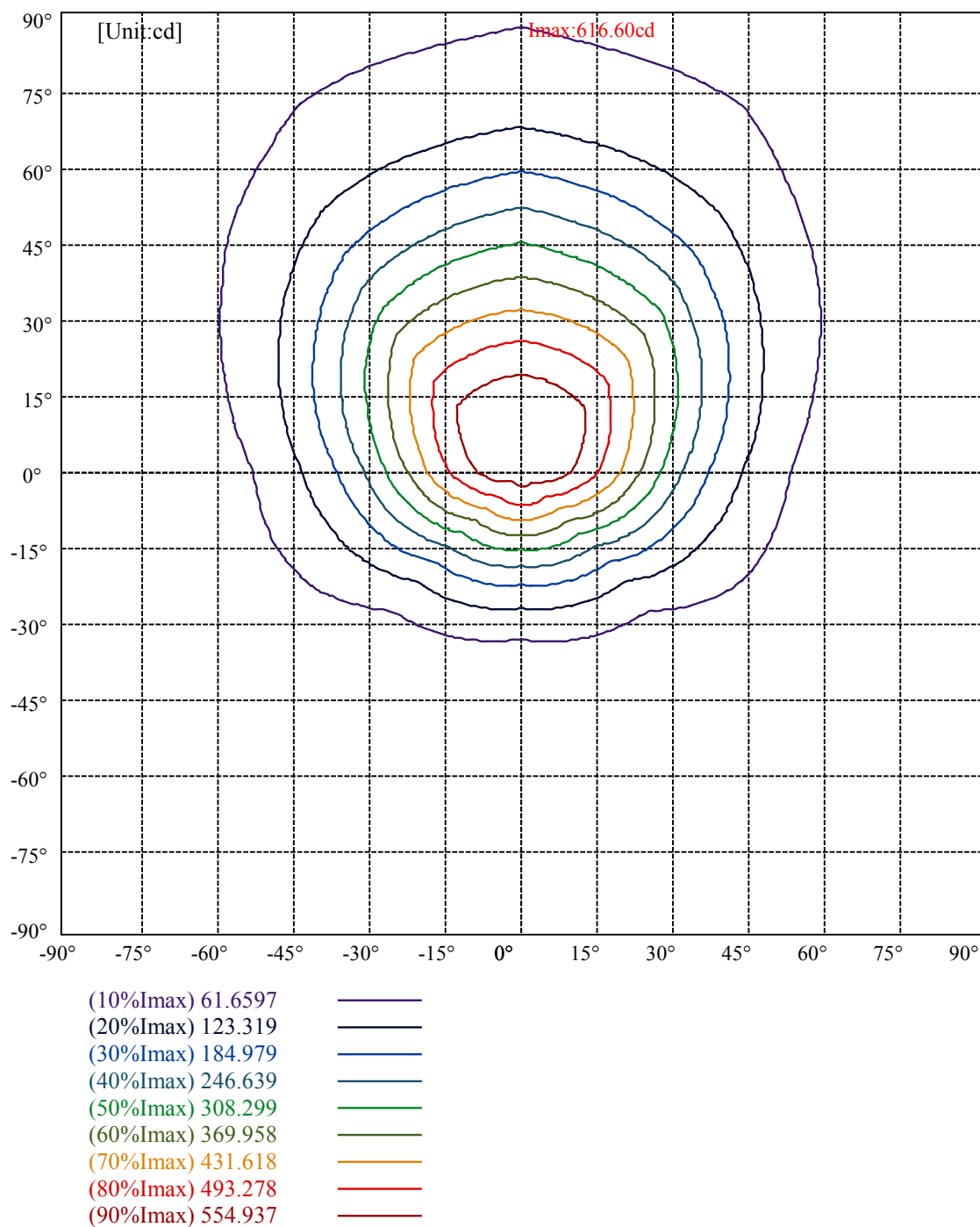
Operator: 01
Distance(m): 6.90





Max , Ave

Beam angle of C90 plane 59.86



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Luminance Limiting Curve(no luminous side)

Appendix Page: 5 Total:6

Luminance Table

γ	45	50	55	60	65	70	75	80	85
C0	27124	20647	15435	13255	12978	12621	12427	12137	12042
C45	64745	56832	51235	45130	41076	39249	44312	56151	89636
C90	77350	72475	67408	61652	58080	57586	60140	78767	134502

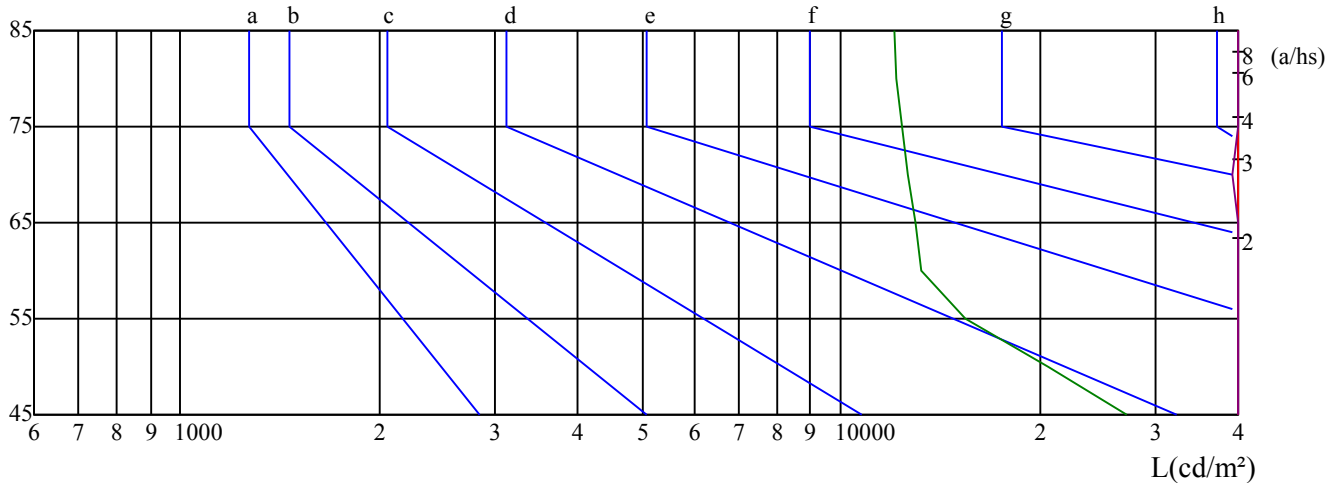
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
12948	30502	21905	12623	33111	24453	12333	75457	52393

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

$\gamma(^{\circ})$



C0 ———

C45 ———

C90 ———

Equipment: equipamento lumini
Temperature($^{\circ}\text{C}$): 25.5

Date: 5/27/2024
Humidity(%): 55.0%

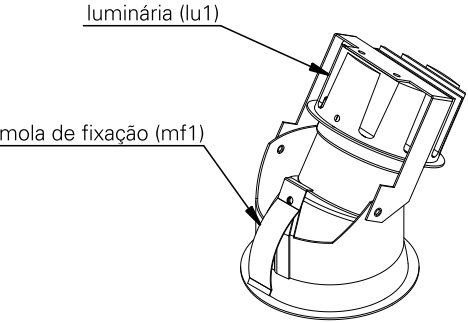
Operator: 01
Distance(m): 6.90

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	24.26	25.70	24.62	26.02	26.33	28.27	29.72	28.63	30.03	30.34
	3H	24.95	26.25	25.33	26.59	26.93	29.82	31.13	30.20	31.46	31.81
	4H	25.26	26.48	25.65	26.83	27.20	30.60	31.83	31.00	32.18	32.54
	6H	25.54	26.68	25.95	27.05	27.44	31.59	32.73	32.00	33.10	33.49
	8H	25.62	26.72	26.04	27.10	27.50	32.16	33.26	32.58	33.64	34.04
	12H	25.67	26.73	26.09	27.11	27.52	32.85	33.90	33.27	34.29	34.70
4H	2H	25.46	26.68	25.85	27.03	27.39	28.56	29.78	28.95	30.13	30.49
	3H	26.45	27.49	26.86	27.88	28.29	30.31	31.35	30.73	31.74	32.15
	4H	27.01	27.93	27.44	28.35	28.79	31.33	32.26	31.76	32.68	33.11
	6H	27.45	28.28	27.91	28.72	29.17	32.53	33.36	32.99	33.80	34.24
	8H	27.64	28.42	28.11	28.86	29.33	33.27	34.05	33.74	34.50	34.96
	12H	27.78	28.51	28.26	28.95	29.45	34.15	34.88	34.63	35.32	35.82
8H	4H	27.92	28.70	28.39	29.15	29.61	31.53	32.31	32.00	32.75	33.22
	6H	28.74	29.39	29.23	29.86	30.36	32.96	33.62	33.46	34.09	34.59
	8H	29.17	29.75	29.68	30.26	30.74	33.94	34.51	34.45	35.02	35.51
	12H	29.49	29.98	30.02	30.49	31.00	35.05	35.54	35.58	36.05	36.56
12H	4H	28.19	28.92	28.67	29.36	29.86	31.55	32.27	32.02	32.71	33.22
	6H	29.26	29.84	29.78	30.35	30.84	33.10	33.68	33.61	34.19	34.67
	8H	29.82	30.31	30.34	30.82	31.33	34.12	34.61	34.64	35.11	35.62
Variation with the observer position at spacings:											
S = 1.0H		0.2/-0.7					0.6/-0.9				
S = 1.5H		0.4/-0.7					0.9/-1.2				
S = 2.0H		0.4/-0.7					1.4/-1.4				
Standard tables:		BKBF					BKFF				
Uncorrected UGR		18.0					12.4				

依据CIE Publ. 117 计算 UGR, S/H = 0.25

downled

downled sm r pro cob ww flex e



especificações técnicas

fonte de luz
módulo led integrado (incluso)

índice de proteção
IP20 - luminária para uso interno

peso
downled sm r pro cob ww flex e - 0,4 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.

atenção

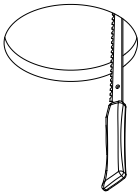
leia atentamente todas as instruções relacionadas ao seu produto antes de utilizá-lo.

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

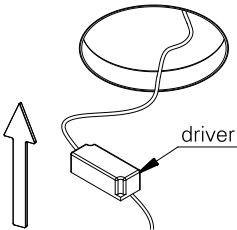
não são permitidas modificações no produto, esse deve atender à finalidade para a qual foi projetado e ser utilizado de acordo com as especificações técnicas.

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

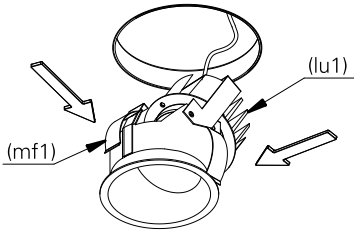
1. faça um nicho no forro conforme o modelo do produto na tabela.
downled sm r pro cob ww flex e = Ø82mm



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.



3. segurando as molas de fixação (mf1), encaixe a luminária (lu1) no nicho.



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

