



no frame flex sm a e

linha de luminárias embutidas para tecnologia led, para forro de gesso, parede ou piso, com opções de facho fixos e orientáveis. sua principal característica é a fixação sem moldura, conferindo um acabamento limpo aos ambientes.

informações técnicas

fonte de luz
LED integrado

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

vida útil
25.000h/50.000h

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

W		K	lm nominal	lm útil
6,5	d	2500		
6,5	d	2700		
6,5	d	3000	938	317
6,5	d	4000		
6	c	2700		
6	m	2700		
6	a	2700		
6	c	3000	690	431
6	m	3000	690	519
6	a	3000	690	448
12,5	c	2700		
12,5	m	2700		
12,5	a	2700		
12,5	c	3000	1550	1152
12,5	m	3000	1550	1096
12,5	a	3000	1550	1053
12,5	c	4000		
12,5	m	4000		
12,5	a	4000		
12	c	dim to warm	924	651
12	m	dim to warm	924	649
12	a	dim to warm	924	631
5	m	2700	290	200
5	a	2700	290	201
9	m	2700	525	333
9	a	2700	525	315

equipamentos
LED driver 180mA (incluso, ponto remoto)
LED driver 350mA (incluso, ponto remoto)
LED driver 700mA (incluso, ponto remoto)

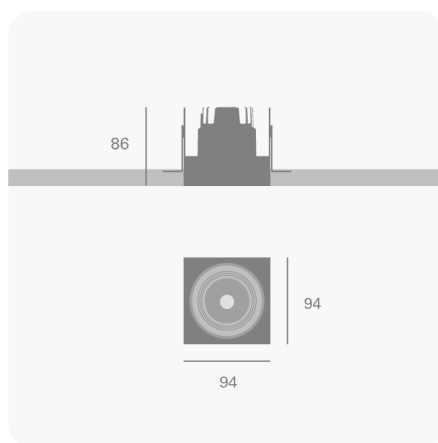
controle
on/off

dim fphase
dim dali
dim 1-10V

instalação
forro de gesso

IP
20

dimensões



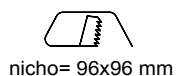
acabamentos e cores

cores



vista lateral

dimensões em milímetros



no frame flex difusa sm a e

folha
1/1

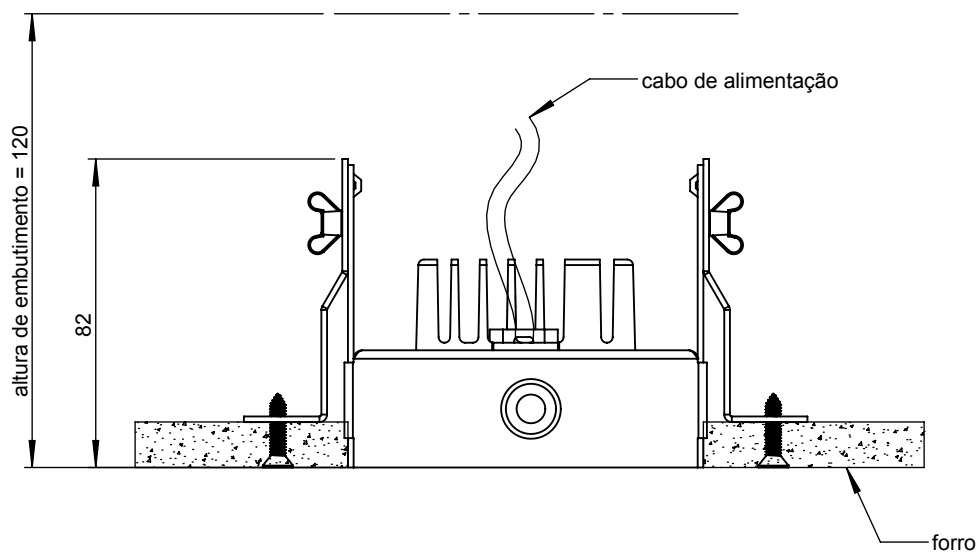
escala
1:2

data
13/05/2019

desenhista
joao ferreira

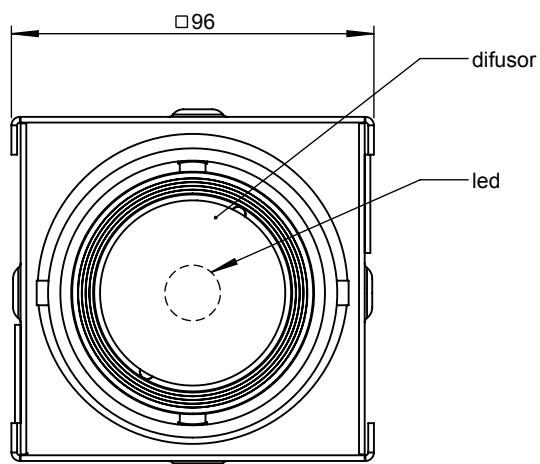
aprovação
edmilson

revisões
13/05/2019



vista inferior

dimensões em milímetros



para maiores informações,
consulte a área técnica
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LumCAT:

Luminaire: no frame flex difusa sm a e

LampCAT: modulo led 6.5W 30K irc 90

Ballast type: led driver 700mA

Report No:

Voltage(V): 127.9100

Test No:

Current(A): 0.0640

Number of Lamps: 1

Power (W): 7.7730

Lamp flux(lm): 938.0

PF: 0.9540

Length(mm): 55

Width(mm): 55

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 316.85, Efficiency(%): 33.78% , Luminous Efficacy(lm/W): 40.76

Central intensity(cd): 216.911, Maximum intensity(cd): 216.911

Angle of maximum intensity: C=0.0 γ =0.0

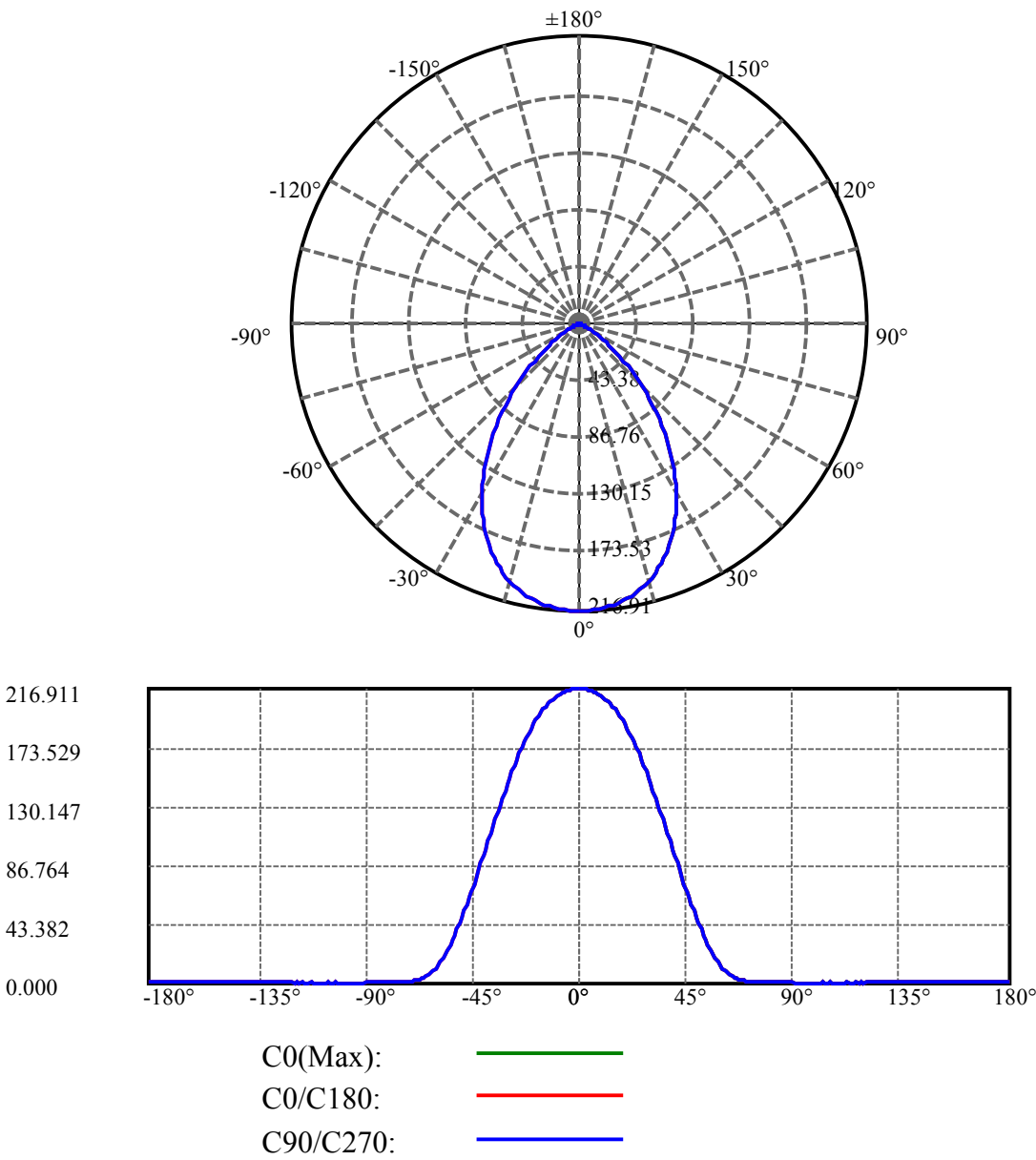
Beam angle of C0 plane : 74.58

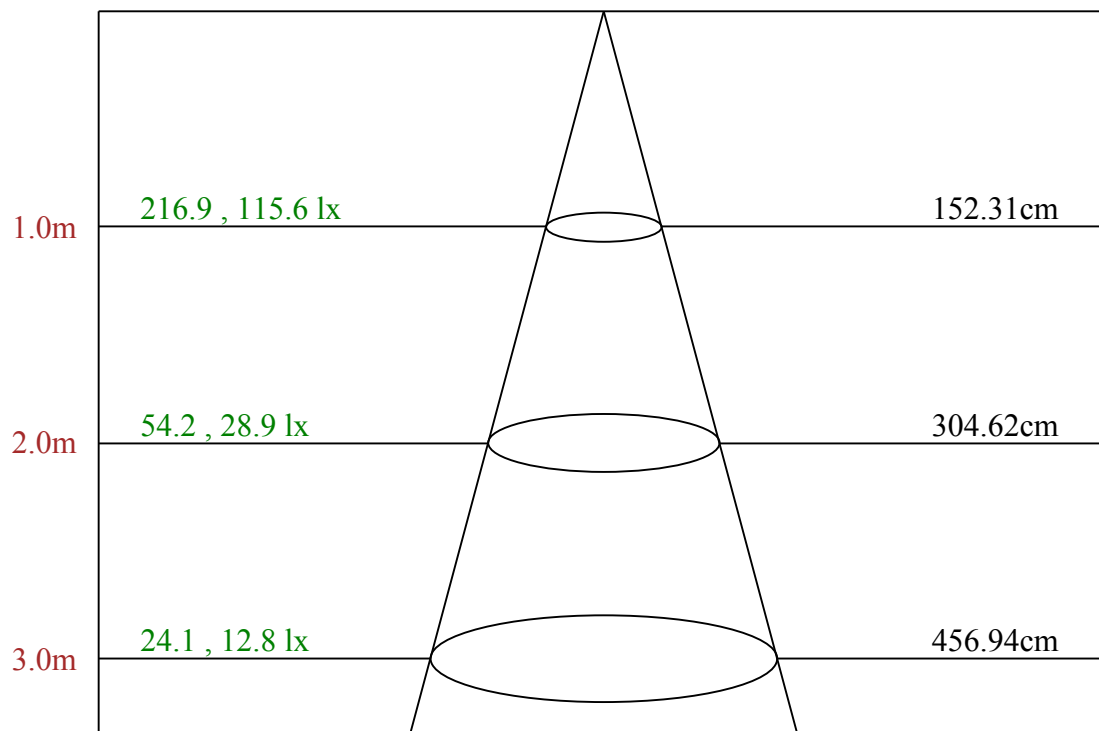
Aveage BeamAngle(IEC 61341):74.58

Equipment: equipamento lumini
Temperature(°C): 25.0

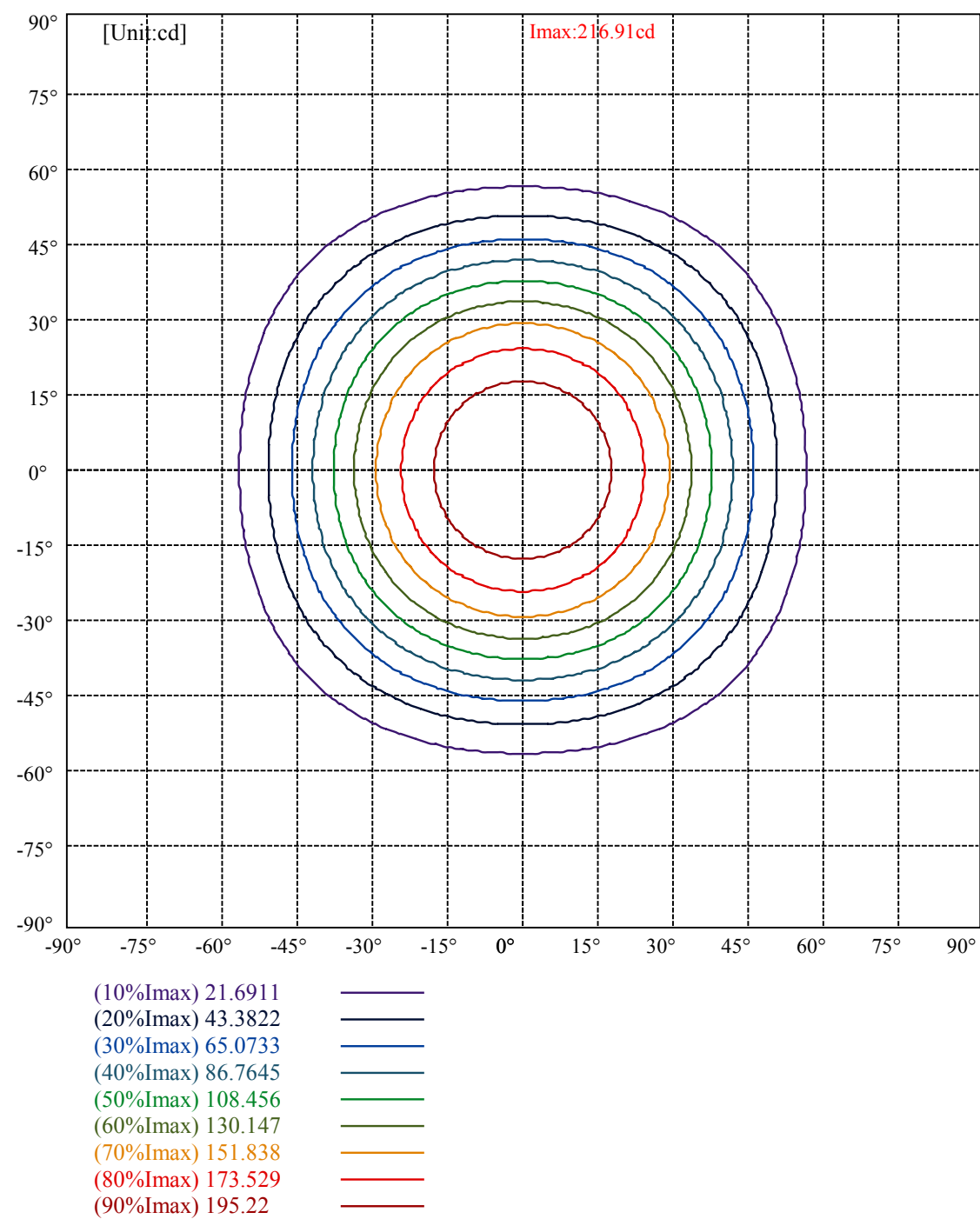
Date: 02/06/2025
Humidity(%): 58.0%

Operator: 01
Distance(m): 6.90





Max , Ave Beam angle of C0 plane 74.58



Luminance Table

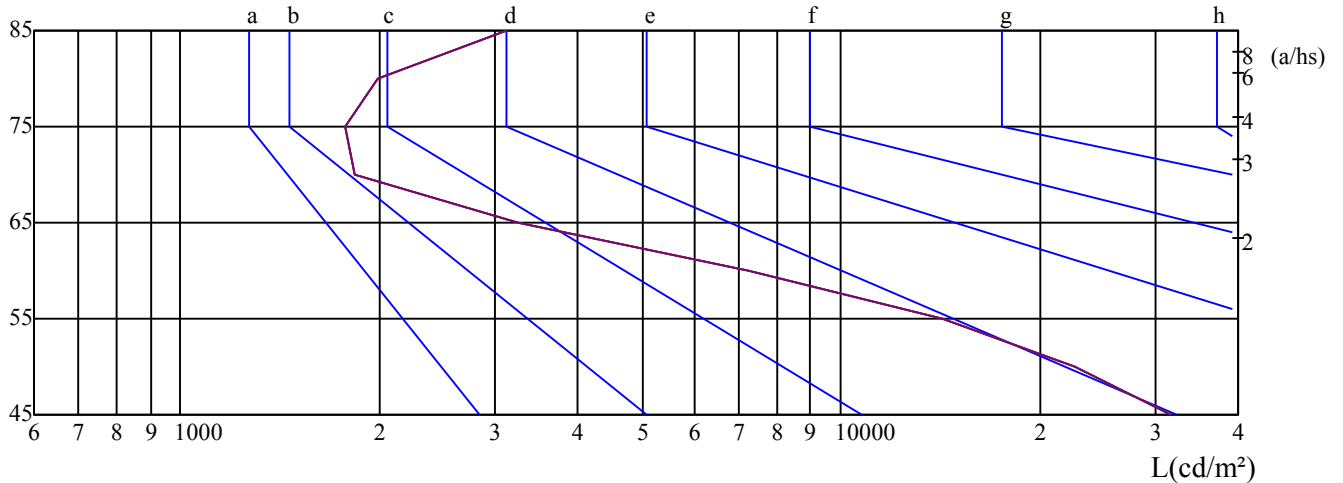
γ	45	50	55	60	65	70	75	80	85
C0	31723	22673	14241	7236	3235	1841	1779	1994	3115
C45	31723	22673	14241	7236	3235	1841	1779	1994	3115
C90	31723	22673	14241	7236	3235	1841	1779	1994	3115

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3235	3235	3235	1779	1779	1779	3115	3115	3115

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 ———

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	22.21	23.42	22.60	23.77	24.13	22.60	23.81	22.99	24.16	24.52
	3H	22.09	23.16	22.50	23.53	23.92	22.49	23.56	22.91	23.94	24.32
	4H	22.02	23.01	22.44	23.40	23.80	22.42	23.41	22.85	23.80	24.21
	6H	21.96	22.87	22.40	23.28	23.72	22.37	23.28	22.81	23.68	24.12
	8H	21.90	22.77	22.35	23.19	23.64	22.31	23.18	22.75	23.59	24.04
	12H	21.85	22.68	22.30	23.10	23.56	22.26	23.08	22.71	23.51	23.97
4H	2H	22.17	23.16	22.60	23.55	23.96	22.53	23.52	22.96	23.91	24.32
	3H	22.03	22.85	22.49	23.28	23.73	22.41	23.23	22.86	23.65	24.11
	4H	22.00	22.71	22.47	23.16	23.65	22.38	23.09	22.84	23.54	24.03
	6H	21.90	22.53	22.40	23.01	23.50	22.28	22.91	22.78	23.39	23.88
	8H	21.87	22.45	22.38	22.94	23.44	22.24	22.83	22.75	23.31	23.82
	12H	21.84	22.38	22.36	22.86	23.42	22.22	22.76	22.74	23.24	23.79
8H	4H	21.84	22.42	22.35	22.91	23.42	22.21	22.80	22.72	23.28	23.79
	6H	21.73	22.22	22.26	22.72	23.27	22.11	22.59	22.64	23.10	23.65
	8H	21.75	22.17	22.30	22.72	23.25	22.12	22.54	22.68	23.09	23.62
	12H	21.73	22.08	22.29	22.62	23.18	22.11	22.45	22.67	23.00	23.55
12H	4H	21.80	22.33	22.31	22.81	23.37	22.17	22.71	22.68	23.19	23.74
	6H	21.73	22.15	22.28	22.69	23.23	22.10	22.52	22.66	23.07	23.60
	8H	21.71	22.05	22.27	22.60	23.15	22.08	22.43	22.64	22.97	23.52
Variation with the observer position at spacings:											
S = 1.0H		1.1/-3.0					1.1/-3.0				
S = 1.5H		2.8/-7.7					2.8/-7.7				
S = 2.0H		5.5/-9.8					5.5/-9.8				
Standard tables:		BK0					BK0				
Uncorrected UGR		2.6					2.6				

依据CIE Publ. 117 计算 UGR, S/H = 0.25



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LumCAT:

Luminaire: no frame flex sm a cob serie 3 e fc

LampCAT: modulo led 6W 3000K irc 90

Ballast type: led driver 180mA

Report No:

Voltage(V): 127.0000

Test No:

Current(A): 0.0610

Number of Lamps: 1

Power (W): 7.6500

Lamp flux(lm): 690.0

PF: 0.9900

Length(mm): 55

Width(mm): 55

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 431.09, Efficiency(%): 62.48% , Luminous Efficacy(lm/W): 56.35

Central intensity(cd): 2087.448, Maximum intensity(cd): 2087.448

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

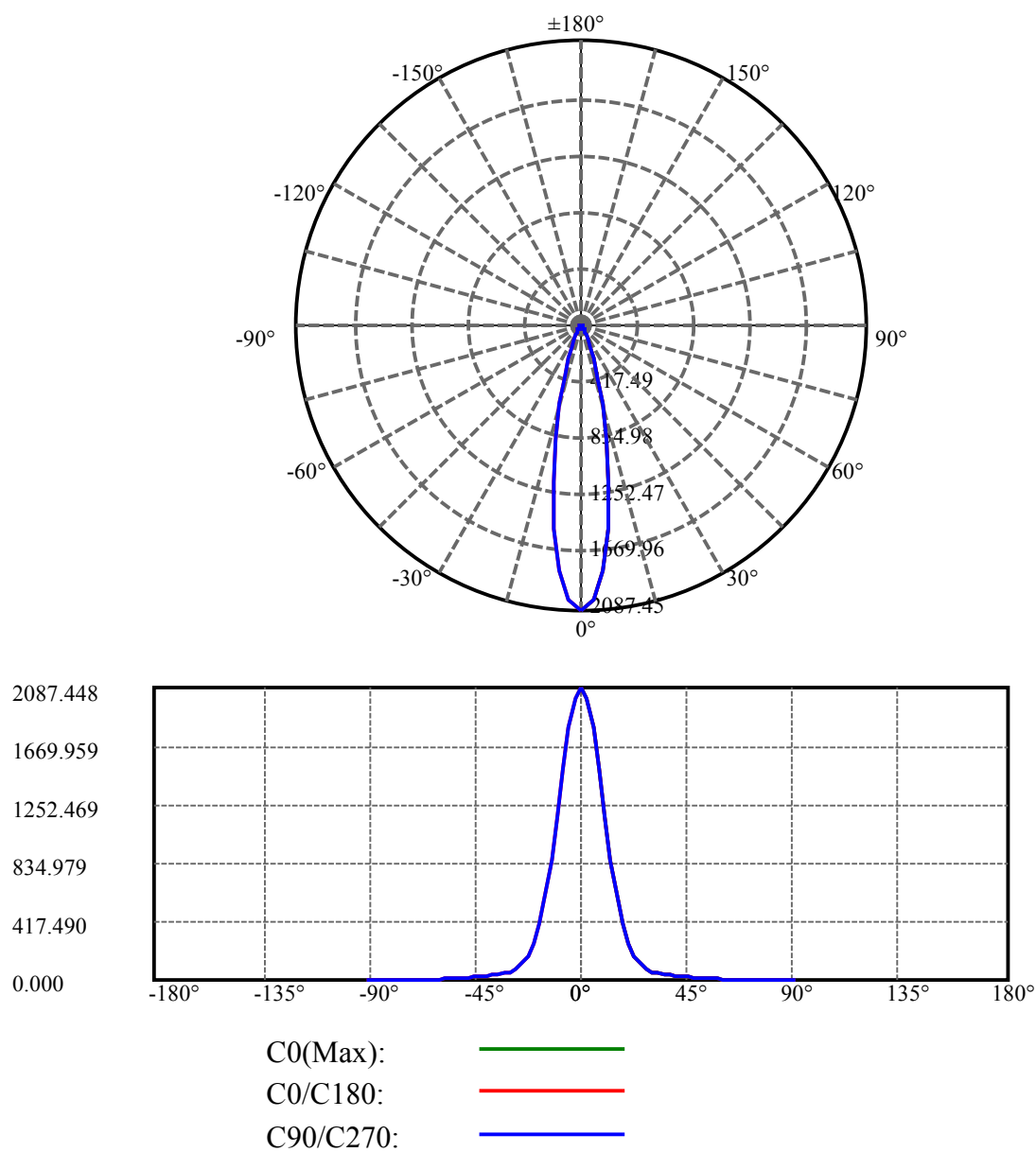
Beam angle of C0 plane : 21.80

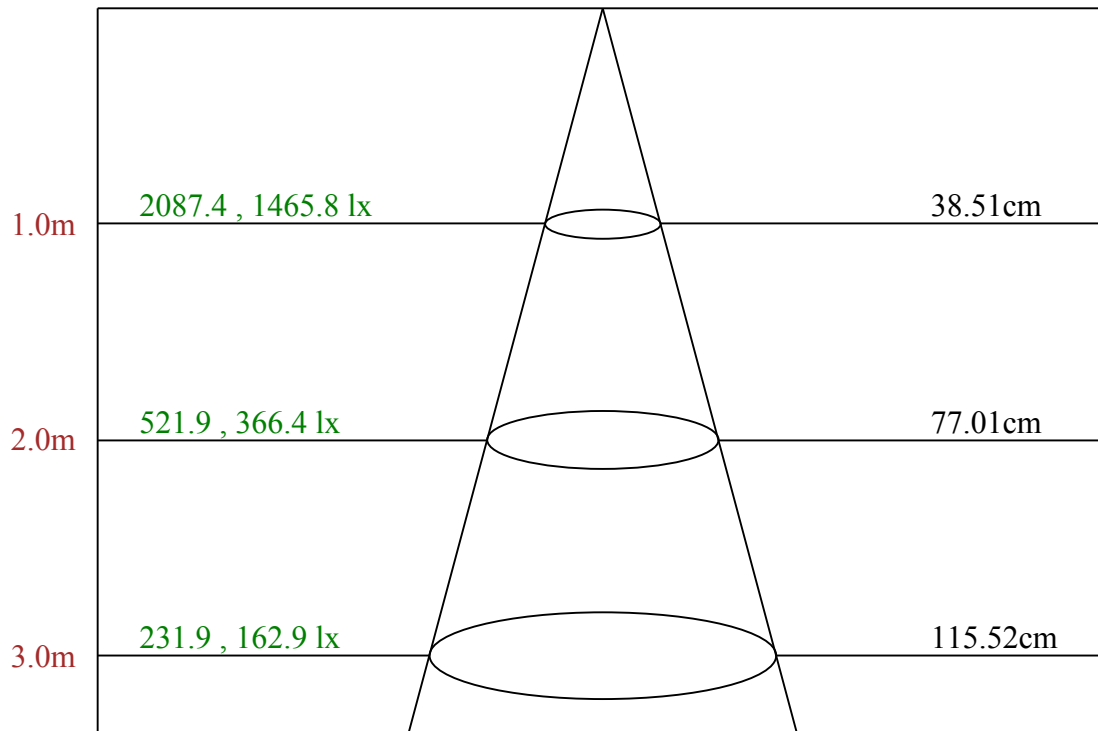
Aveage BeamAngle(IEC 61341):21.80

Equipment: equipamento lumini
Temperature(°C): 25.5

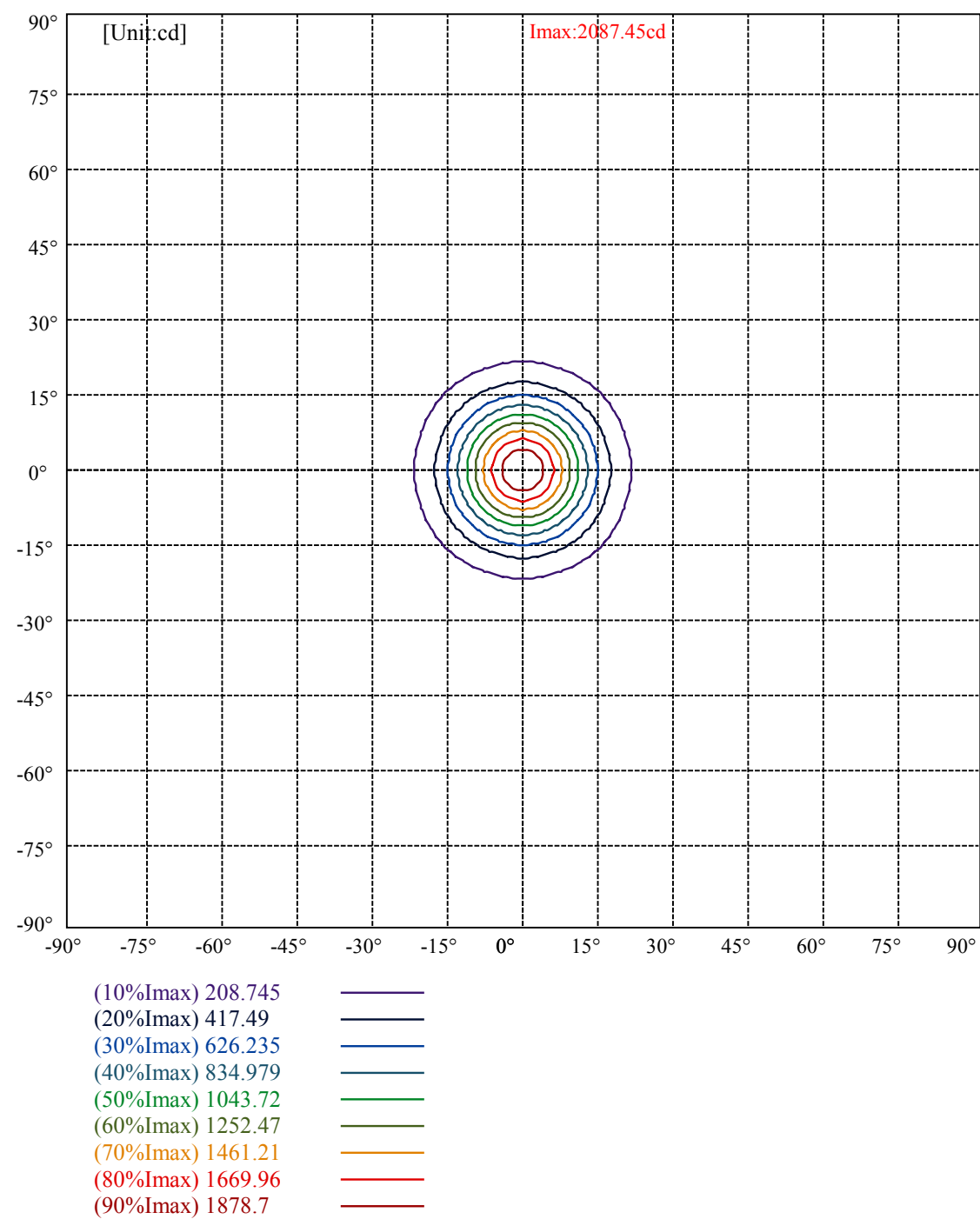
Date: 5/14/2024
Humidity(%): 55.0%

Operator: 01
Distance(m): 6.90





Max , Ave Beam angle of C0 plane 21.80



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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	9549	7339	5248	3282	1927	1369	1581	2266	4334
C45	9549	7339	5248	3282	1927	1369	1581	2266	4334
C90	9549	7339	5248	3282	1927	1369	1581	2266	4334

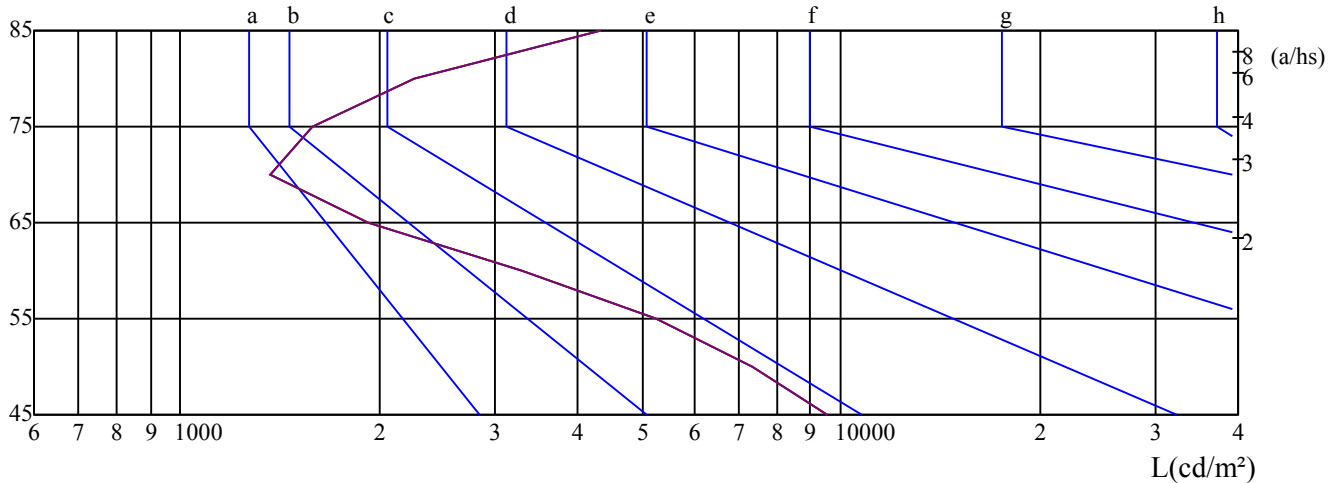
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1927	1927	1927	1581	1581	1581	4334	4334	4334

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($^{\circ}$ C): 25.5

Date: 5/14/2024
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	14.01	14.99	14.38	15.30	15.62	13.22	14.19	13.58	14.50	14.82
	3H	13.96	14.83	14.35	15.17	15.51	13.19	14.06	13.58	14.39	14.74
	4H	13.93	14.73	14.33	15.09	15.46	13.18	13.98	13.58	14.34	14.71
	6H	13.98	14.71	14.40	15.09	15.49	13.26	13.99	13.68	14.37	14.77
	8H	14.01	14.71	14.43	15.09	15.50	13.32	14.02	13.74	14.40	14.81
	12H	14.13	14.79	14.55	15.18	15.60	13.45	14.11	13.88	14.51	14.93
4H	2H	13.98	14.78	14.38	15.14	15.50	13.26	14.06	13.66	14.42	14.78
	3H	13.94	14.61	14.36	15.00	15.42	13.25	13.92	13.68	14.31	14.73
	4H	13.98	14.56	14.42	14.98	15.43	13.32	13.90	13.76	14.32	14.77
	6H	14.05	14.56	14.53	15.02	15.47	13.44	13.95	13.91	14.40	14.86
	8H	14.17	14.64	14.66	15.10	15.58	13.59	14.06	14.08	14.52	15.00
	12H	14.42	14.86	14.91	15.31	15.83	13.87	14.30	14.36	14.75	15.27
8H	4H	13.86	14.33	14.35	14.79	15.26	13.22	13.69	13.71	14.15	14.63
	6H	14.02	14.41	14.53	14.89	15.40	13.45	13.83	13.95	14.31	14.83
	8H	14.29	14.61	14.82	15.13	15.63	13.76	14.08	14.29	14.60	15.10
	12H	14.71	14.96	15.25	15.48	16.00	14.21	14.46	14.76	14.98	15.50
12H	4H	13.83	14.27	14.32	14.72	15.24	13.20	13.63	13.69	14.09	14.61
	6H	14.07	14.40	14.61	14.92	15.42	13.51	13.83	14.04	14.36	14.85
	8H	14.35	14.60	14.89	15.12	15.64	13.84	14.09	14.38	14.61	15.13
Variation with the observer position at spacings:											
S = 1.0H		1.2/-2.0					1.2/-2.0				
S = 1.5H		2.5/-3.9					2.5/-3.9				
S = 2.0H		4.7/-4.1					4.7/-4.1				
Standard tables:		BK2					BK2				
Uncorrected UGR		-4.7					-4.7				

依据CIE Publ. 117 计算 UGR, S/H = 0.25



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LumCAT:

Luminaire: no frame flex sm a cob serie 3 e fm

LampCAT: modulo led 6W 3000K irc 90

Ballast type: led driver 180mA

Report No:

Voltage(V): 127.0000

Test No:

Current(A): 0.0600

Number of Lamps: 1

Power (W): 7.6600

Lamp flux(lm): 690.0

PF: 0.9900

Length(mm): 55

Width(mm): 55

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 518.75, Efficiency(%): 75.18% , Luminous Efficacy(lm/W): 67.72

Central intensity(cd): 1645.592, Maximum intensity(cd): 1645.592

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

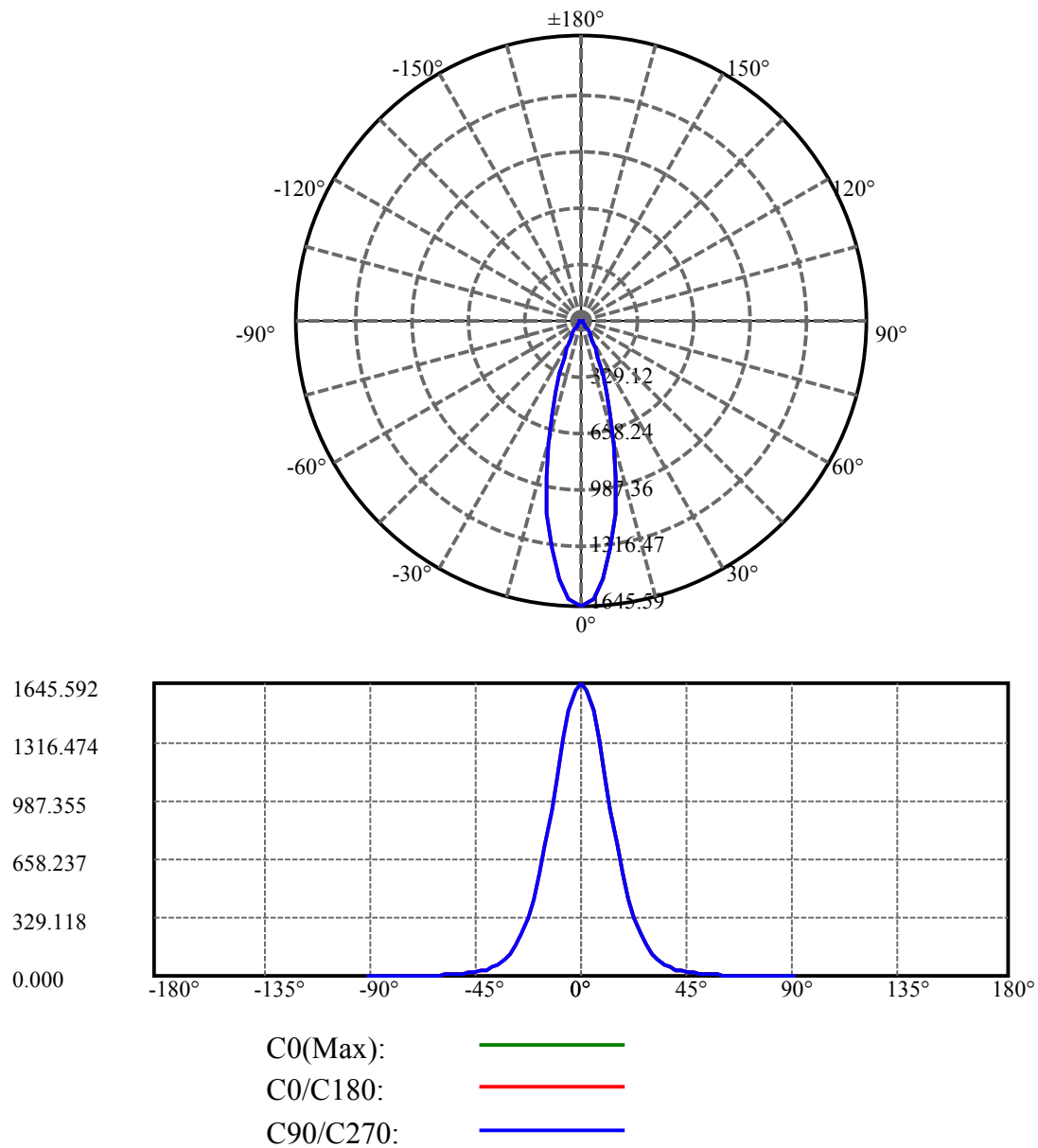
Beam angle of C0 plane : 27.56

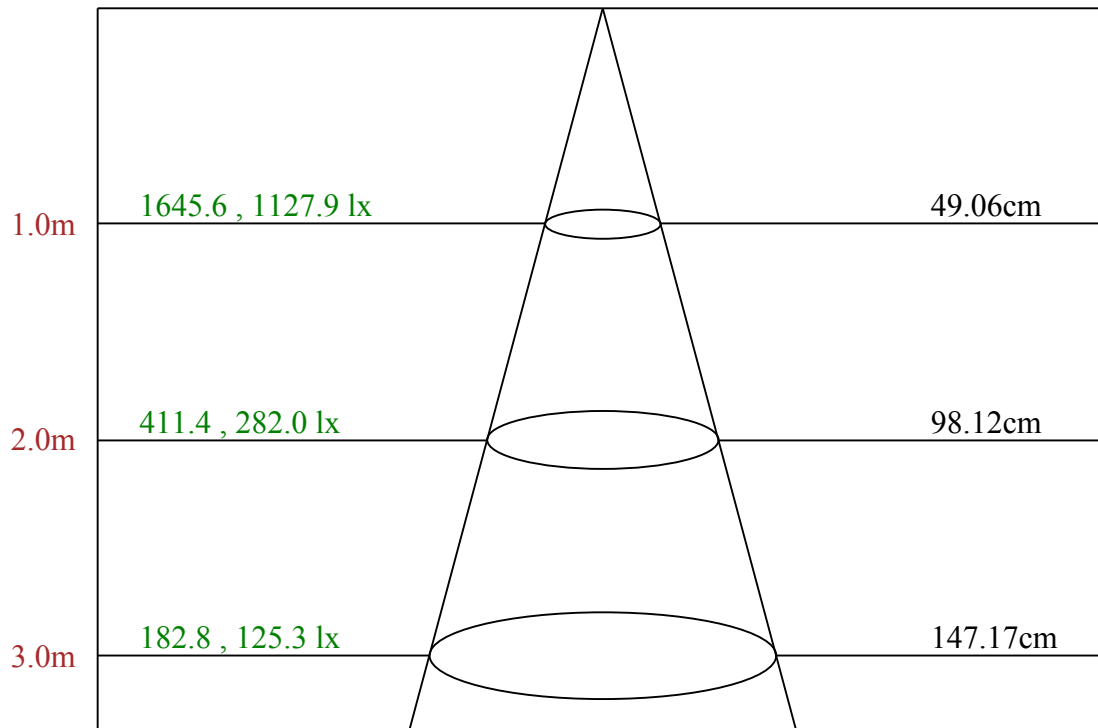
Aveage BeamAngle(IEC 61341):27.56

Equipment: equipamento lumini
Temperature(°C): 25.5

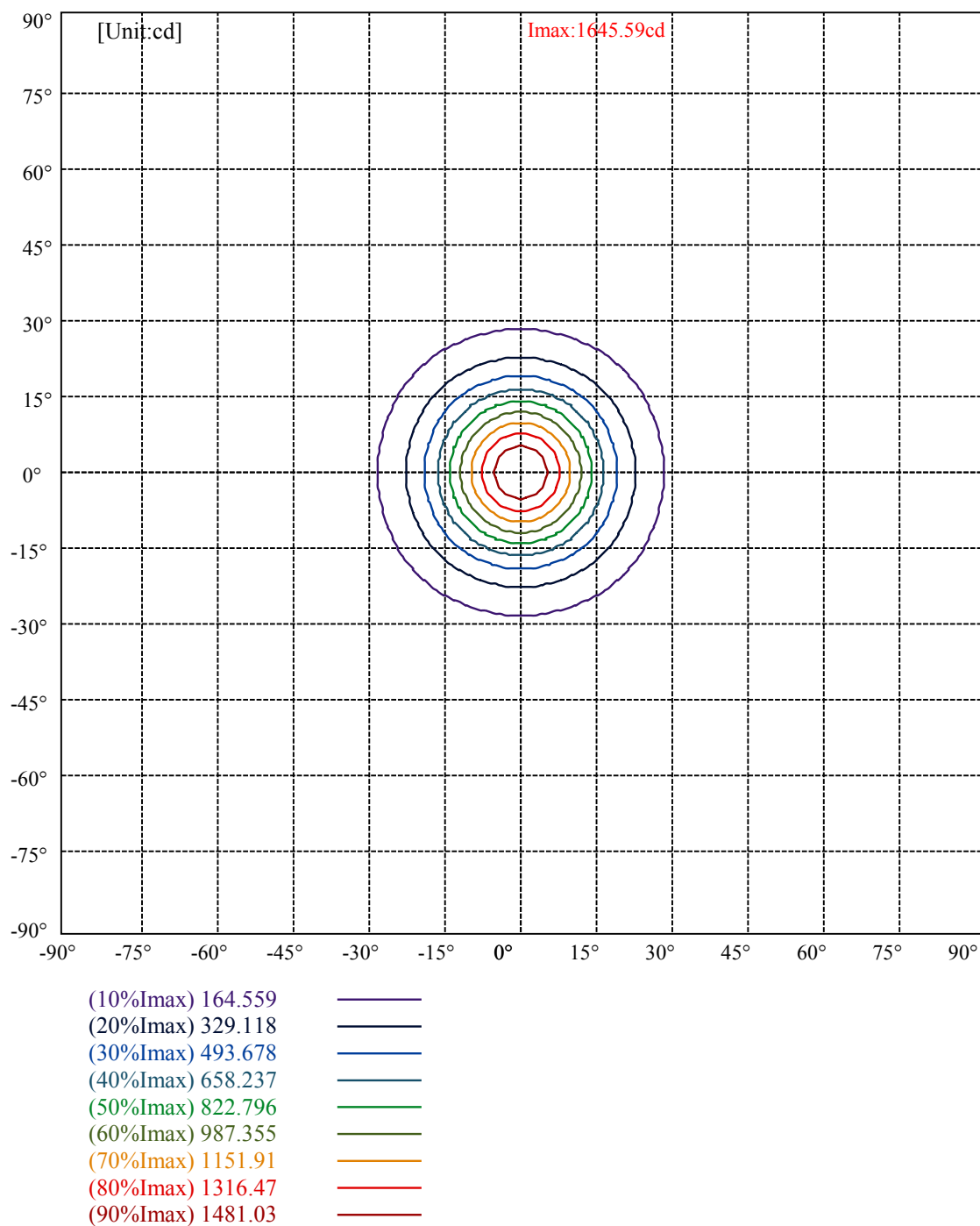
Date: 5/15/2024
Humidity(%): 55.0%

Operator: 01
Distance(m): 6.90





Max , Ave Beam angle of C0 plane 27.56



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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	9404	6134	4174	2778	1741	1473	1779	2560	4876
C45	9404	6134	4174	2778	1741	1473	1779	2560	4876
C90	9404	6134	4174	2778	1741	1473	1779	2560	4876

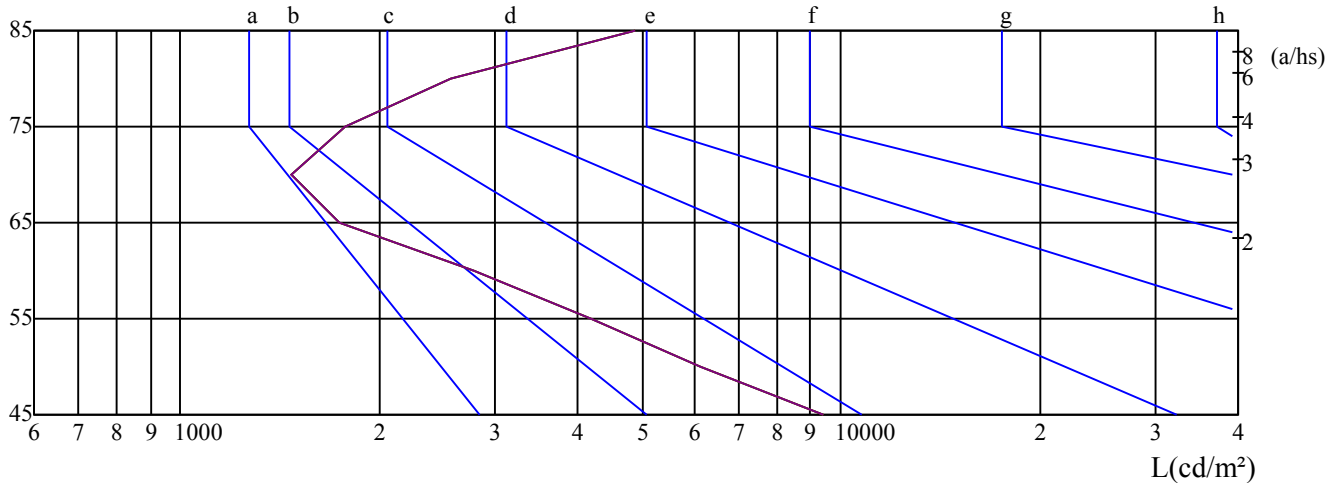
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1741	1741	1741	1779	1779	1779	4876	4876	4876

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($^{\circ}$ C): 25.5

Date: 5/15/2024
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	15.71	16.66	16.07	16.97	17.29	14.61	15.57	14.98	15.88	16.20
	3H	15.57	16.42	15.95	16.75	17.10	14.51	15.36	14.90	15.70	16.04
	4H	15.51	16.29	15.91	16.65	17.02	14.48	15.26	14.88	15.61	15.98
	6H	15.51	16.22	15.93	16.60	17.00	14.52	15.23	14.93	15.61	16.01
	8H	15.51	16.19	15.93	16.58	16.98	14.54	15.23	14.96	15.61	16.02
	12H	15.55	16.20	15.98	16.59	17.01	14.63	15.27	15.05	15.67	16.09
4H	2H	15.51	16.29	15.91	16.65	17.01	14.47	15.25	14.87	15.61	15.97
	3H	15.36	16.02	15.79	16.41	16.83	14.37	15.03	14.80	15.42	15.84
	4H	15.37	15.93	15.80	16.36	16.80	14.40	14.97	14.84	15.39	15.84
	6H	15.37	15.87	15.85	16.33	16.78	14.48	14.98	14.95	15.43	15.88
	8H	15.44	15.91	15.93	16.37	16.84	14.59	15.05	15.08	15.51	15.99
	12H	15.60	16.02	16.09	16.48	17.00	14.80	15.23	15.29	15.68	16.20
8H	4H	15.22	15.68	15.70	16.14	16.61	14.28	14.74	14.76	15.20	15.67
	6H	15.29	15.67	15.80	16.15	16.66	14.44	14.81	14.94	15.29	15.81
	8H	15.48	15.80	16.02	16.32	16.82	14.69	15.01	15.23	15.53	16.03
	12H	15.77	16.01	16.31	16.53	17.05	15.06	15.30	15.60	15.82	16.34
12H	4H	15.18	15.61	15.67	16.06	16.58	14.25	14.67	14.74	15.12	15.65
	6H	15.32	15.64	15.86	16.16	16.66	14.49	14.80	15.02	15.33	15.82
	8H	15.52	15.77	16.07	16.28	16.81	14.76	15.00	15.30	15.52	16.04
Variation with the observer position at spacings:											
S = 1.0H		3.7/-4.1					3.7/-4.1				
S = 1.5H		5.9/-4.9					5.9/-4.9				
S = 2.0H		7.5/-4.5					7.5/-4.5				
Standard tables:		BK2					BK2				
Uncorrected UGR		-4.2					-4.2				

依据CIE Publ. 117 计算 UGR, S/H = 0.25



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LumCAT:

Luminaire: no frame flex sm a cob serie 3 e fa

LampCAT: modulo led 6W 3000K irc 90

Ballast type: led driver 180mA

Report No:

Voltage(V): 127.0000

Test No:

Current(A): 0.0610

Number of Lamps: 1

Power (W): 7.6500

Lamp flux(lm): 690.0

PF: 0.9900

Length(mm): 55

Width(mm): 55

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 447.93, Efficiency(%): 64.92% , Luminous Efficacy(lm/W): 58.55

Central intensity(cd): 756.202, Maximum intensity(cd): 756.202

Angle of maximum intensity: C=0.0 γ =0.0

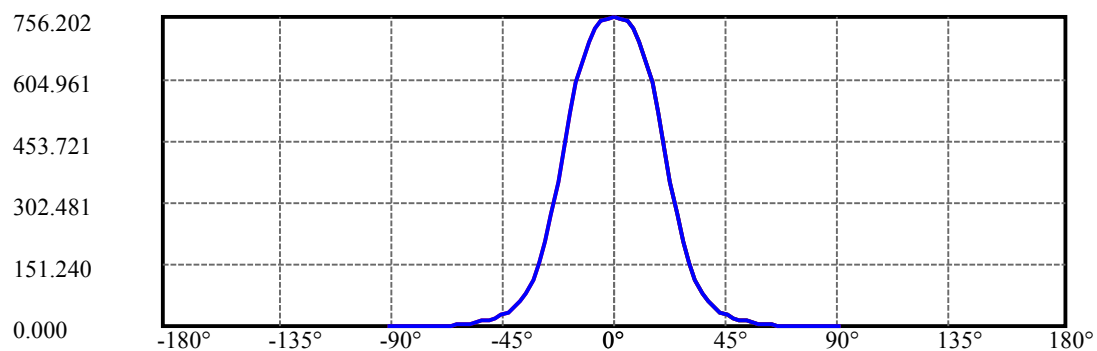
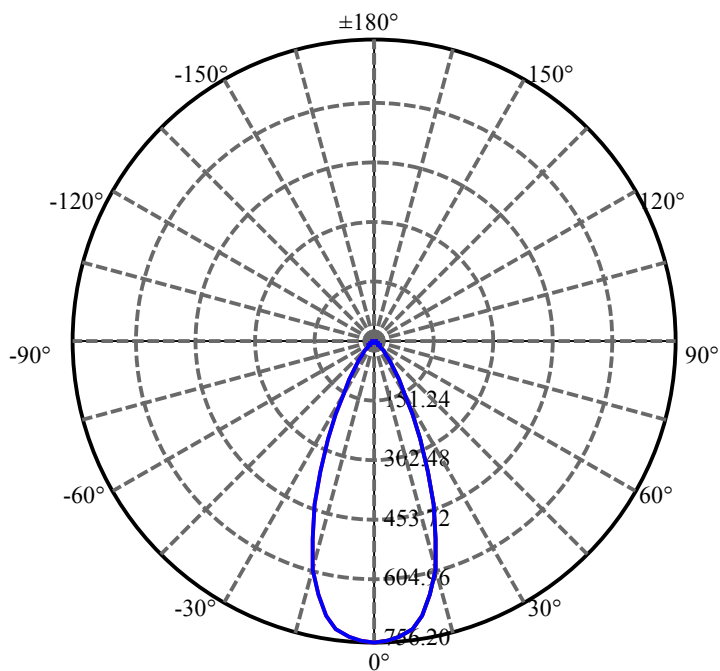
Beam angle of C0 plane : 43.15

Aveage BeamAngle(IEC 61341):43.15

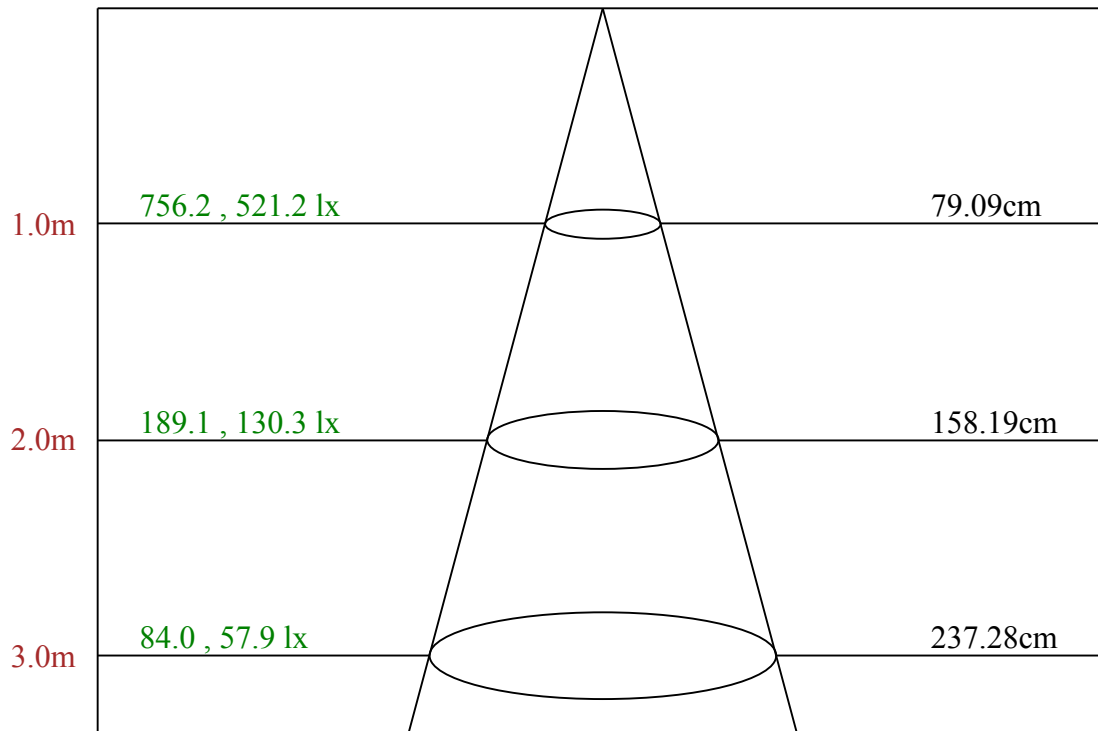
Equipment: equipamento lumini
Temperature(°C): 25.5

Date: 5/14/2024
Humidity(%): 55.0%

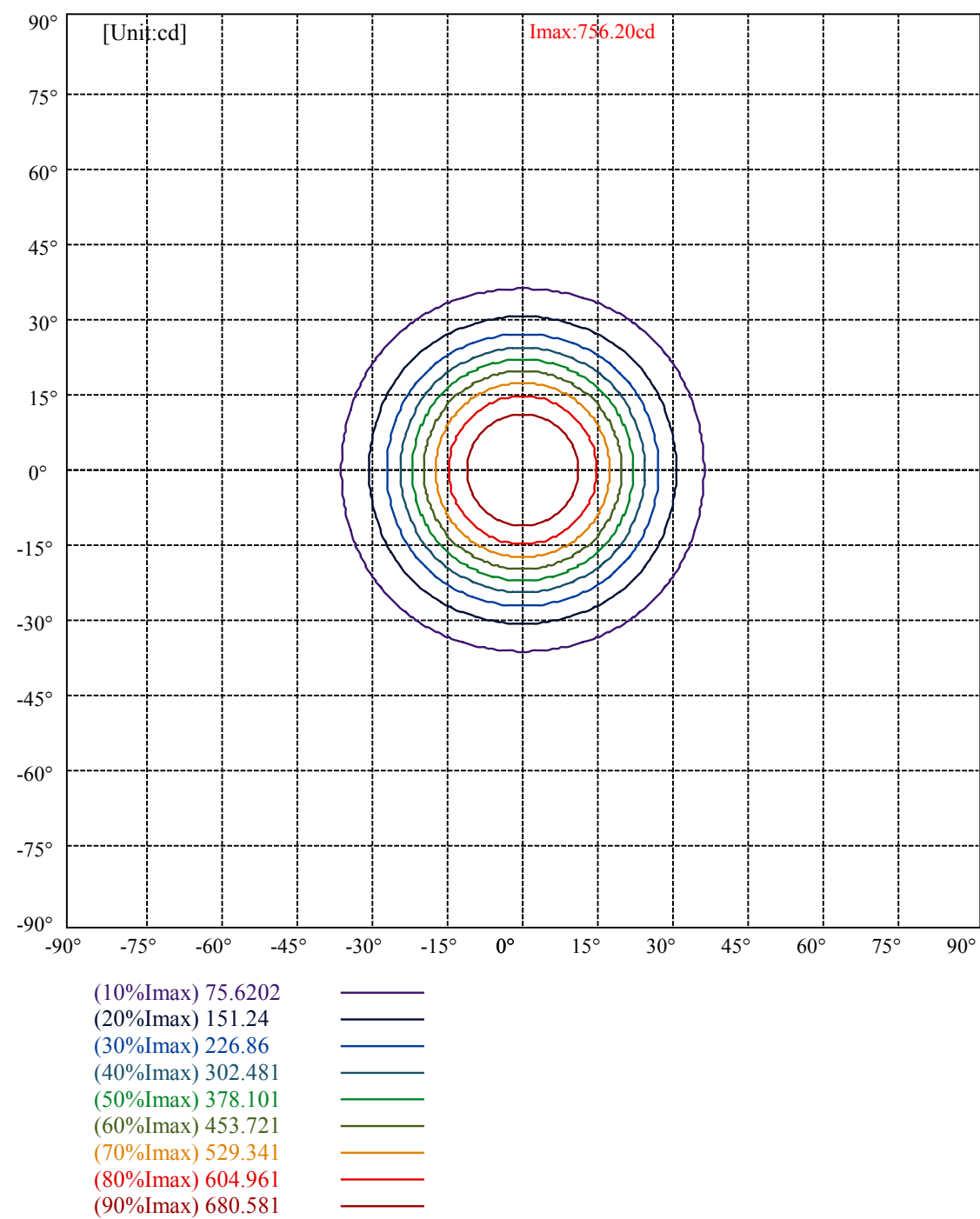
Operator: 01
Distance(m): 6.90



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



Max , Ave Beam angle of C0 plane 43.15



Luminance Table

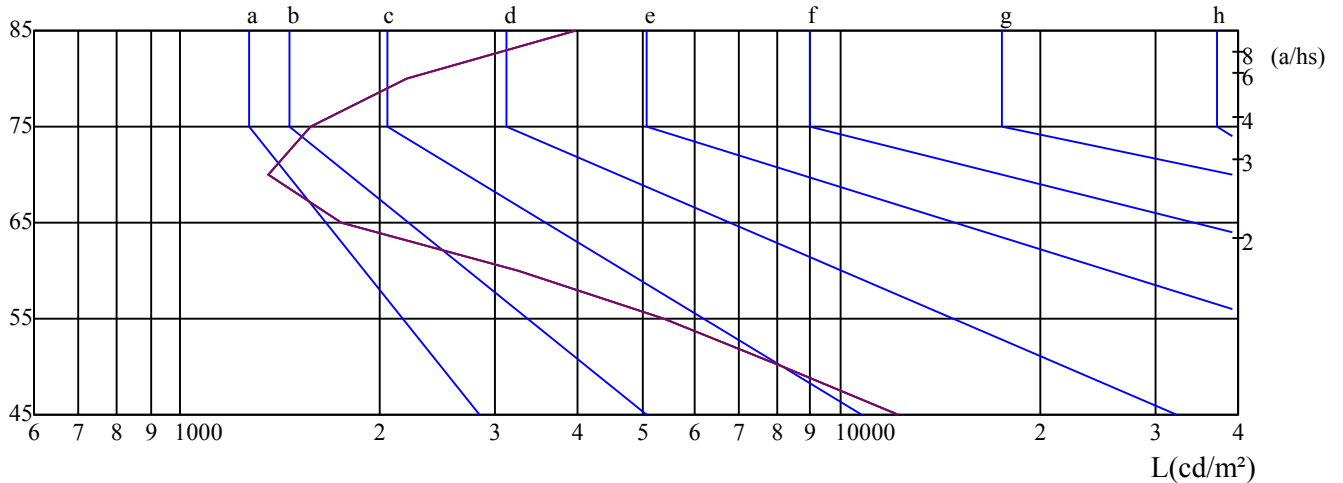
γ	45	50	55	60	65	70	75	80	85
C0	12186	8178	5399	3238	1755	1358	1573	2198	3973
C45	12186	8178	5399	3238	1755	1358	1573	2198	3973
C90	12186	8178	5399	3238	1755	1358	1573	2198	3973

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1755	1755	1755	1573	1573	1573	3973	3973	3973

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 ———

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	17.34	18.33	17.70	18.64	18.95	16.27	17.26	16.63	17.57	17.88
	3H	17.18	18.06	17.57	18.40	18.74	16.13	17.01	16.52	17.35	17.69
	4H	17.11	17.92	17.51	18.27	18.64	16.07	16.88	16.47	17.23	17.60
	6H	17.08	17.82	17.49	18.19	18.59	16.05	16.79	16.47	17.17	17.57
	8H	17.04	17.75	17.47	18.14	18.54	16.03	16.74	16.45	17.12	17.53
	12H	17.03	17.70	17.46	18.10	18.52	16.04	16.71	16.47	17.11	17.53
4H	2H	17.13	17.94	17.53	18.30	18.67	16.11	16.92	16.51	17.27	17.64
	3H	16.97	17.64	17.39	18.04	18.45	15.97	16.64	16.39	17.04	17.46
	4H	16.94	17.52	17.37	17.94	18.39	15.96	16.54	16.39	16.96	17.41
	6H	16.89	17.40	17.36	17.86	18.31	15.93	16.45	16.41	16.90	17.35
	8H	16.91	17.38	17.39	17.84	18.32	15.97	16.45	16.46	16.91	17.38
	12H	16.97	17.41	17.46	17.86	18.38	16.07	16.50	16.56	16.96	17.48
8H	4H	16.77	17.24	17.25	17.70	18.18	15.80	16.28	16.29	16.74	17.21
	6H	16.76	17.15	17.26	17.63	18.14	15.82	16.21	16.33	16.69	17.21
	8H	16.86	17.19	17.40	17.71	18.21	15.97	16.29	16.50	16.82	17.31
	12H	16.99	17.25	17.54	17.77	18.29	16.15	16.40	16.69	16.92	17.44
12H	4H	16.73	17.17	17.22	17.62	18.14	15.76	16.20	16.25	16.65	17.17
	6H	16.77	17.10	17.30	17.62	18.12	15.85	16.17	16.38	16.70	17.19
	8H	16.86	17.12	17.40	17.63	18.16	15.98	16.23	16.52	16.75	17.27
Variation with the observer position at spacings:											
S = 1.0H		3.7/-4.5					3.7/-4.5				
S = 1.5H		6.0/-6.5					6.0/-6.5				
S = 2.0H		8.0/-6.4					8.0/-6.4				
Standard tables:		BK1					BK1				
Uncorrected UGR		-2.8					-2.8				

依据CIE Publ. 117 计算 UGR, S/H = 0.25



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LumCAT:

Luminaire: no frame flex sm a serie 2 cob 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 γ =0.0

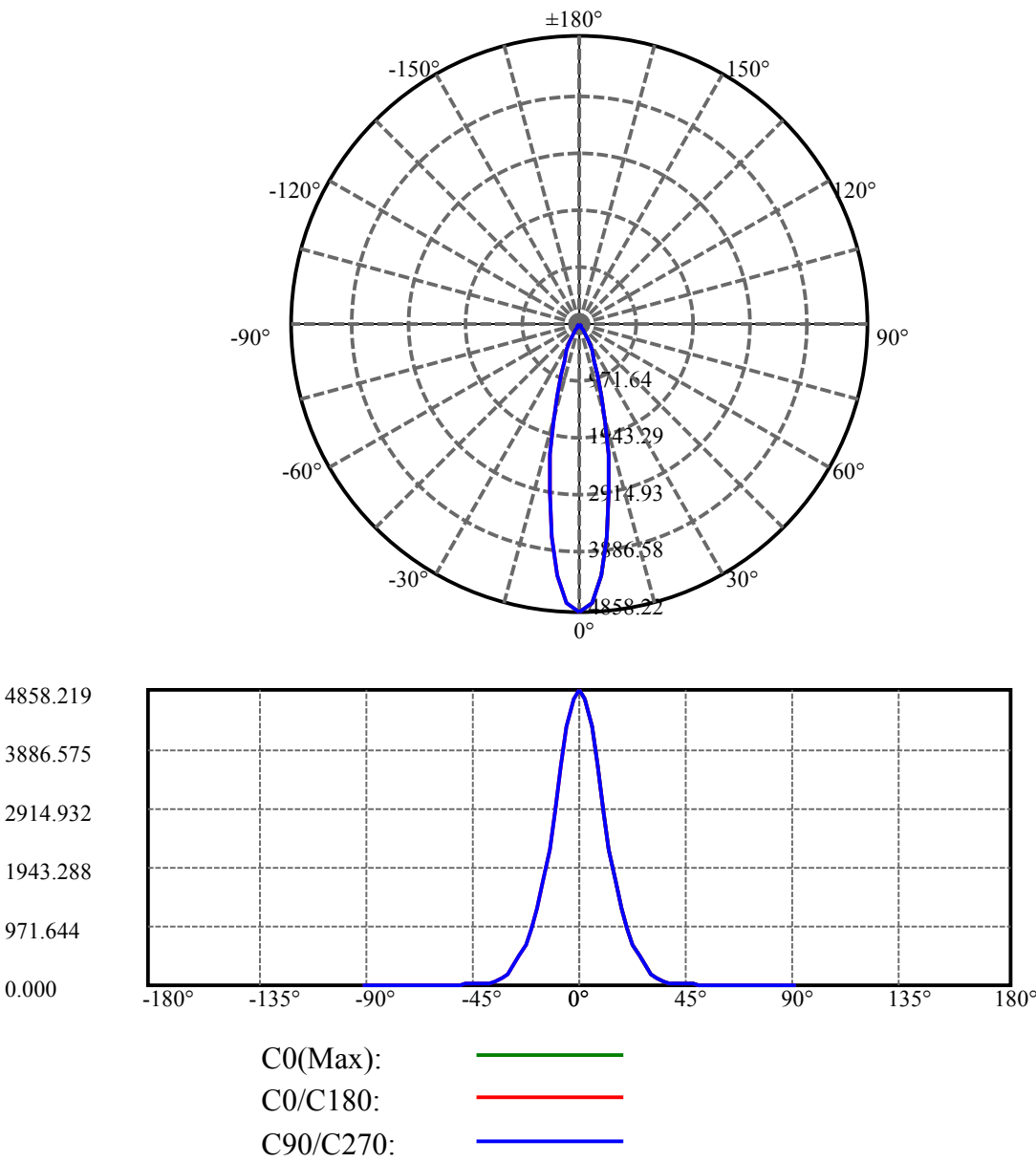
Beam angle of C0 plane : 23.24

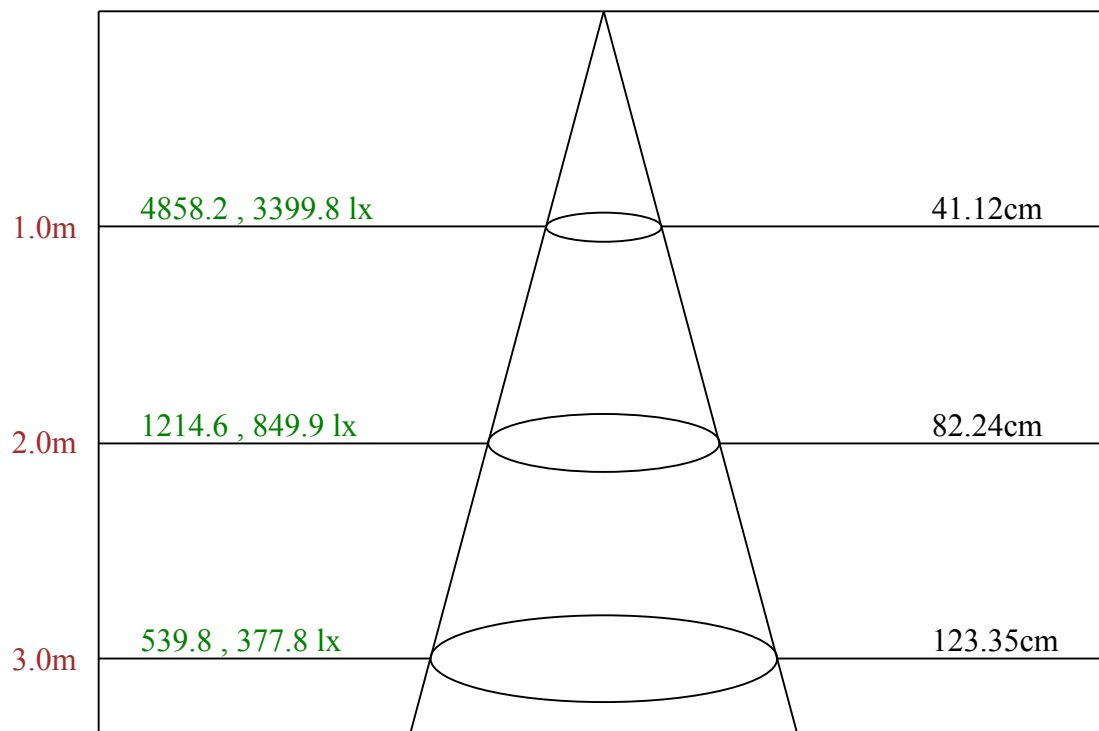
Aveage BeamAngle(IEC 61341):23.24

Equipment: equipamento lumini
Temperature(°C): 25.5

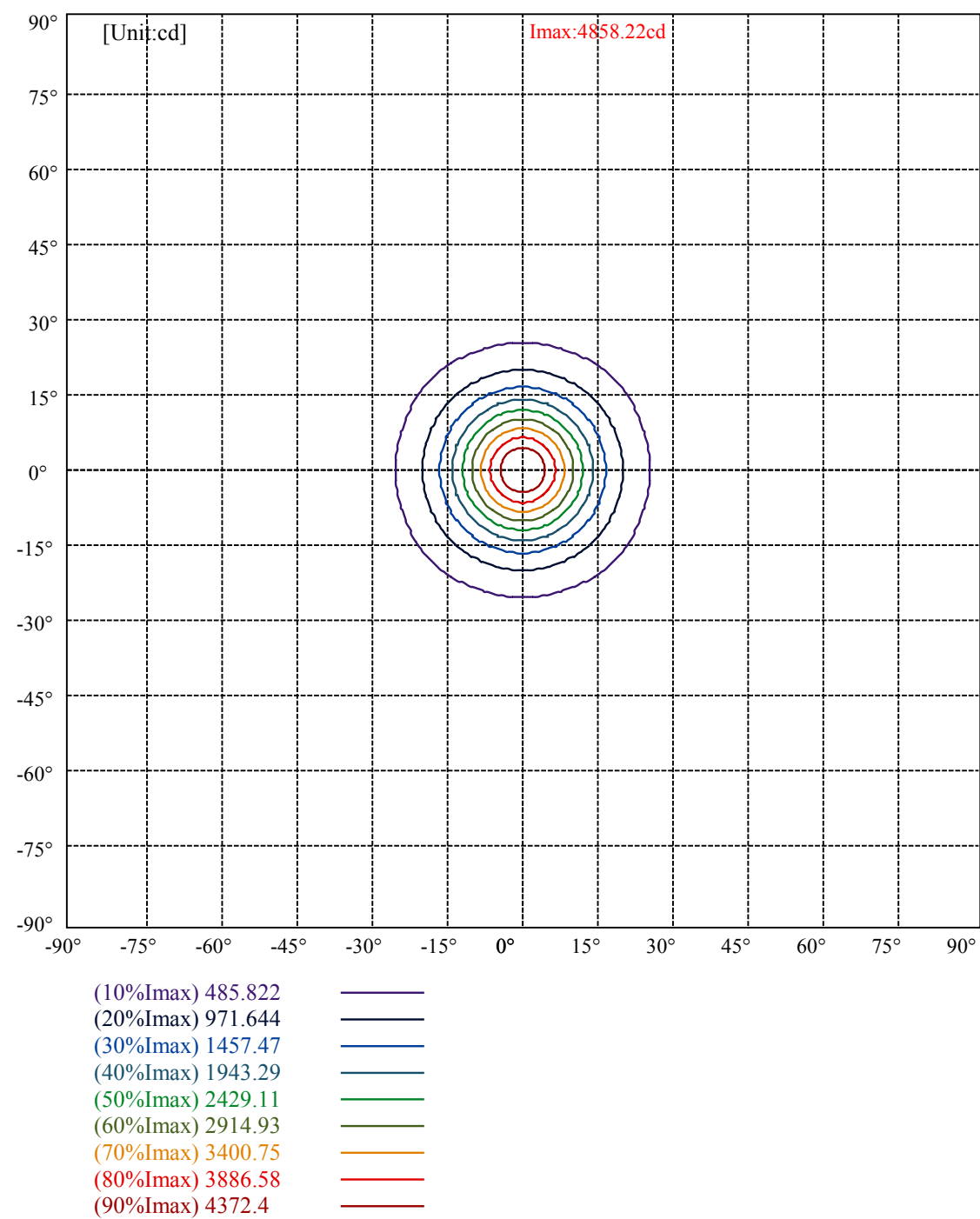
Date: 5/9/2024
Humidity(%): 55.0%

Operator: 01
Distance(m): 6.90





Max , Ave Beam angle of C0 plane 23.24



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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	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

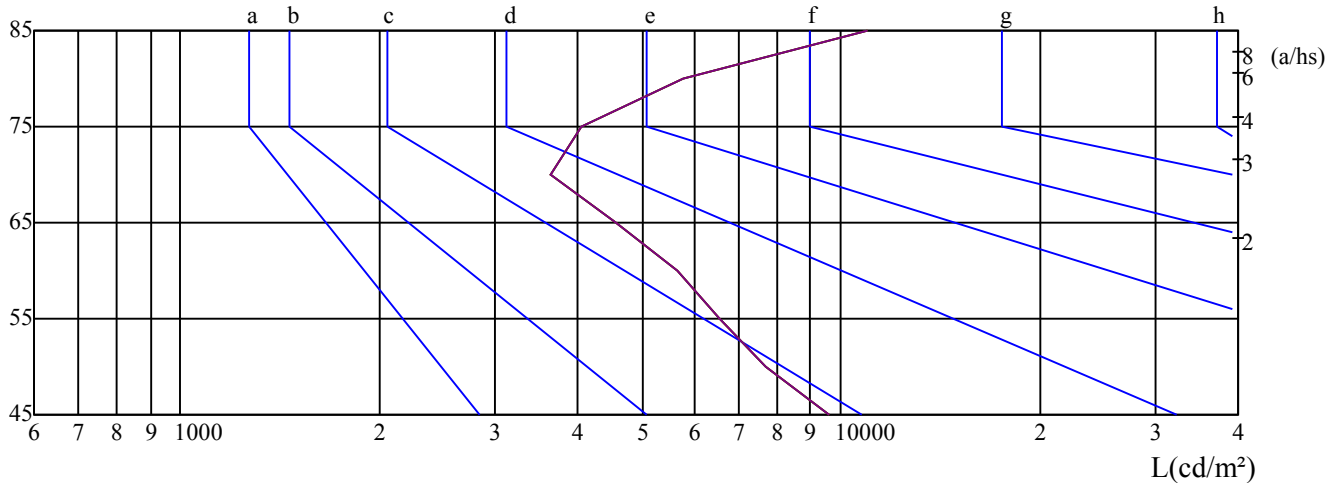
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4567	4567	4567	4051	4051	4051	10970	10970	10970

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

$\gamma(^{\circ})$



C0 ———

C45 ———

C90 ———

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

Date: 5/9/2024
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	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



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LumCAT:

Luminaire: no frame flex sm a serie 2 cob 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 γ =0.0

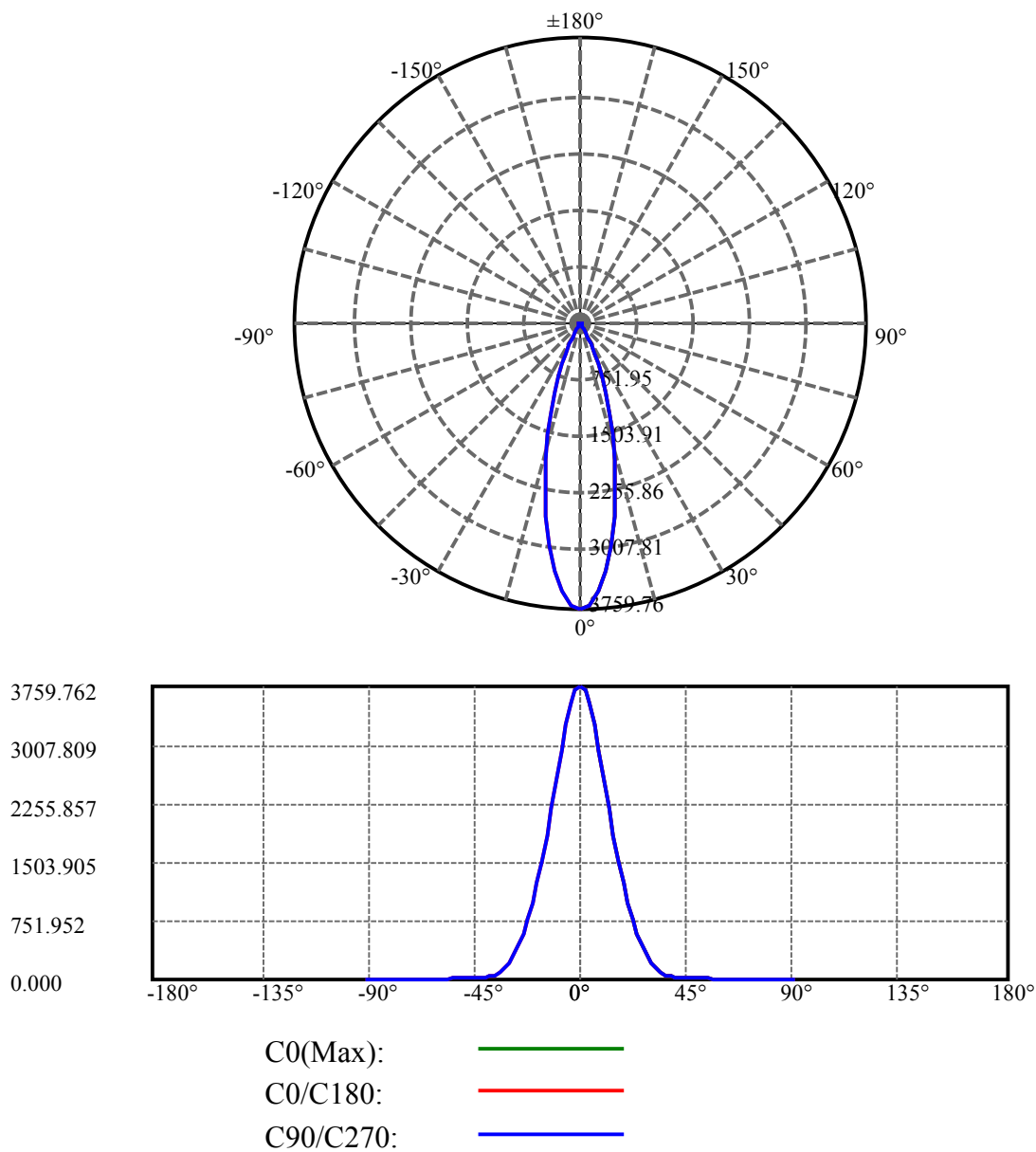
Beam angle of C0 plane : 27.65

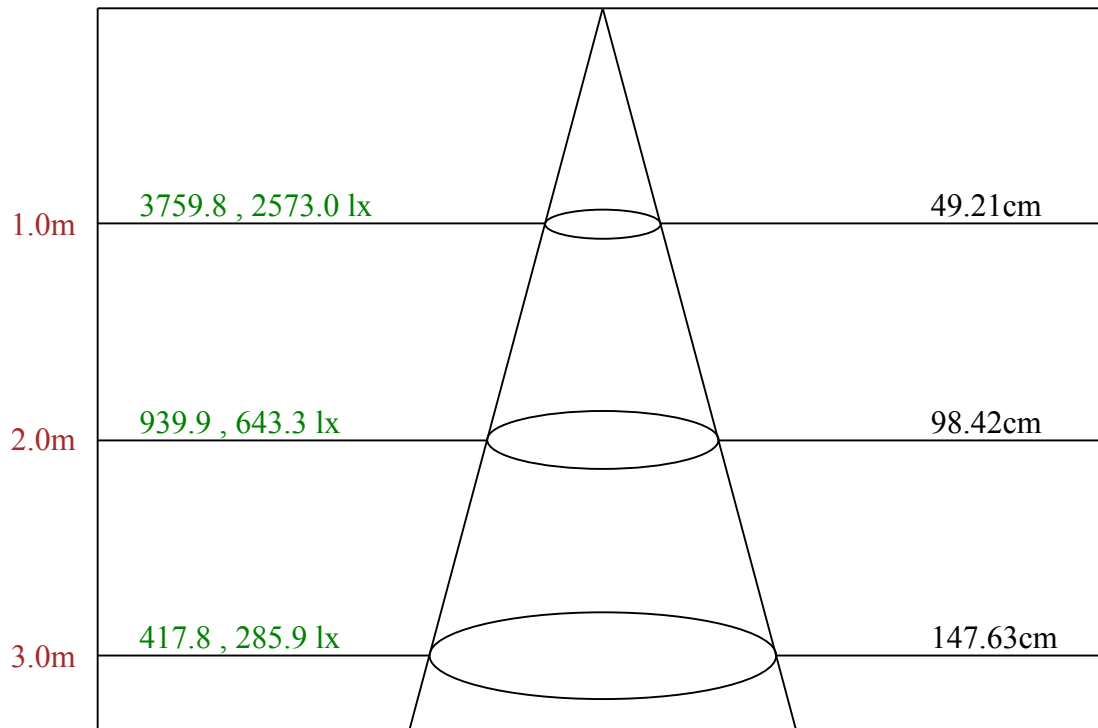
Average BeamAngle(IEC 61341): 27.65

Equipment: equipamento lumini
Temperature(°C): 25.5

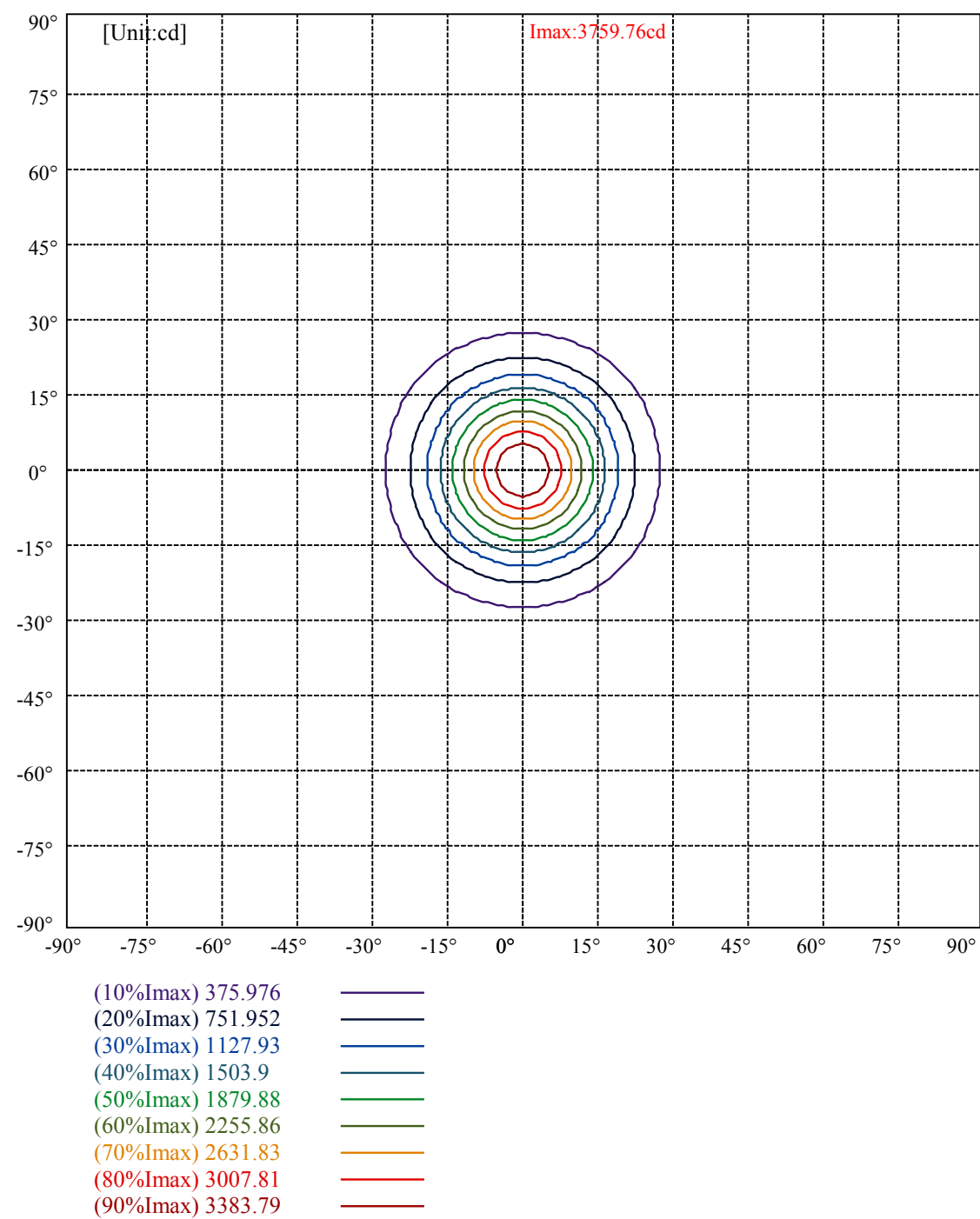
Date: 5/9/2024
Humidity(%): 55.0%

Operator: 01
Distance(m): 6.90





Max , Ave Beam angle of C0 plane 27.65



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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	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

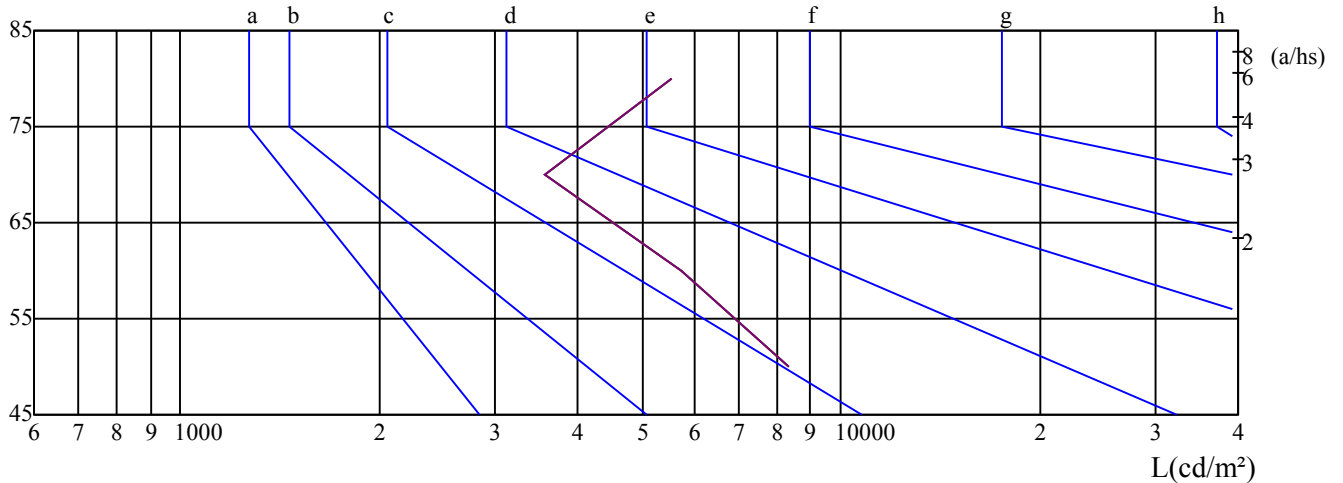
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4567	4567	4567	4051	4051	4051	10970	10970	10970

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

$\gamma(^{\circ})$



C0 ———

C45 ———

C90 ———

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

Date: 5/9/2024
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	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



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LumCAT:

Luminaire: no frame flex sm a serie 2 cob 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: $C=0.0$ $\gamma=0.0$

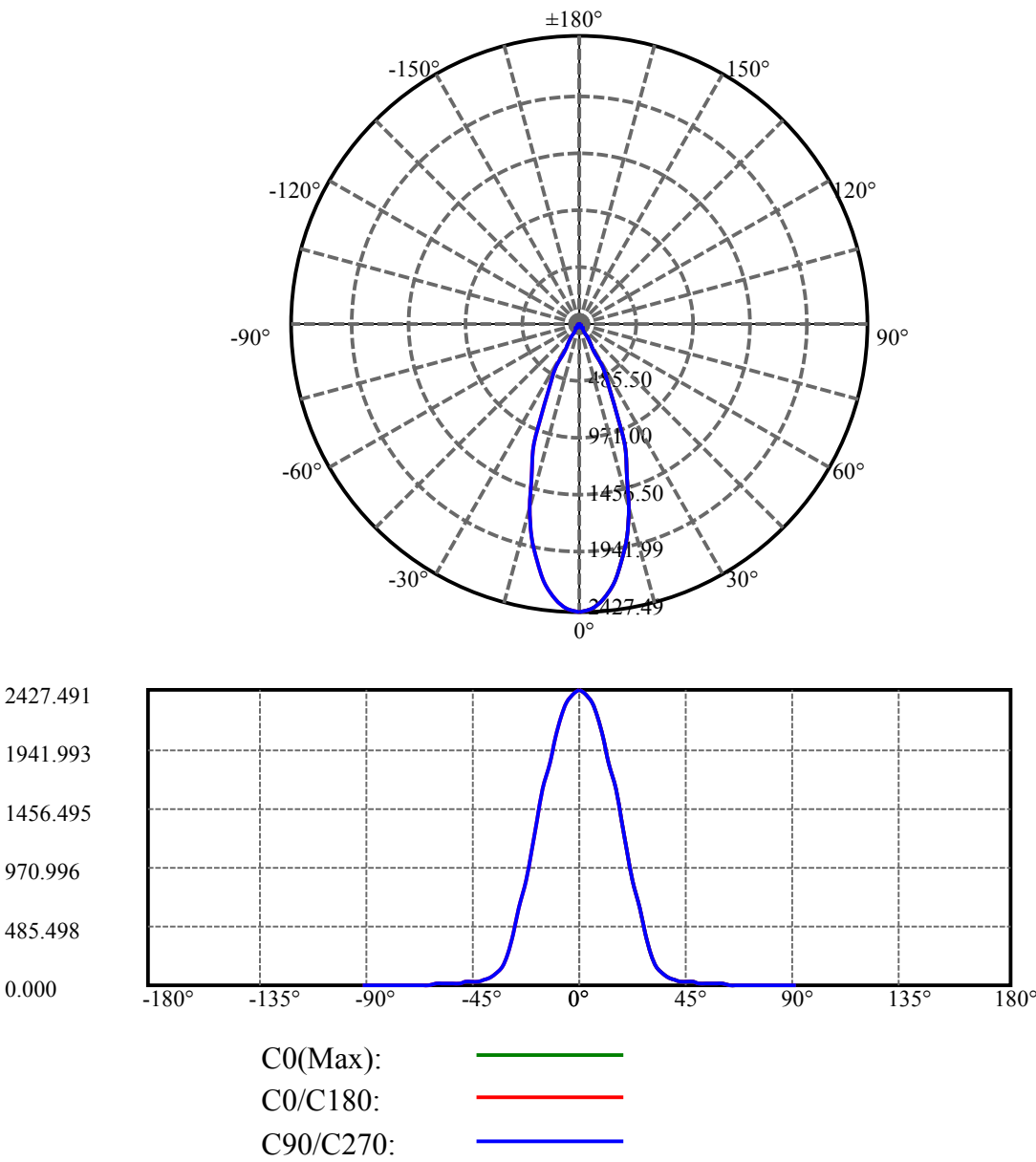
Beam angle of C0 plane : 38.07

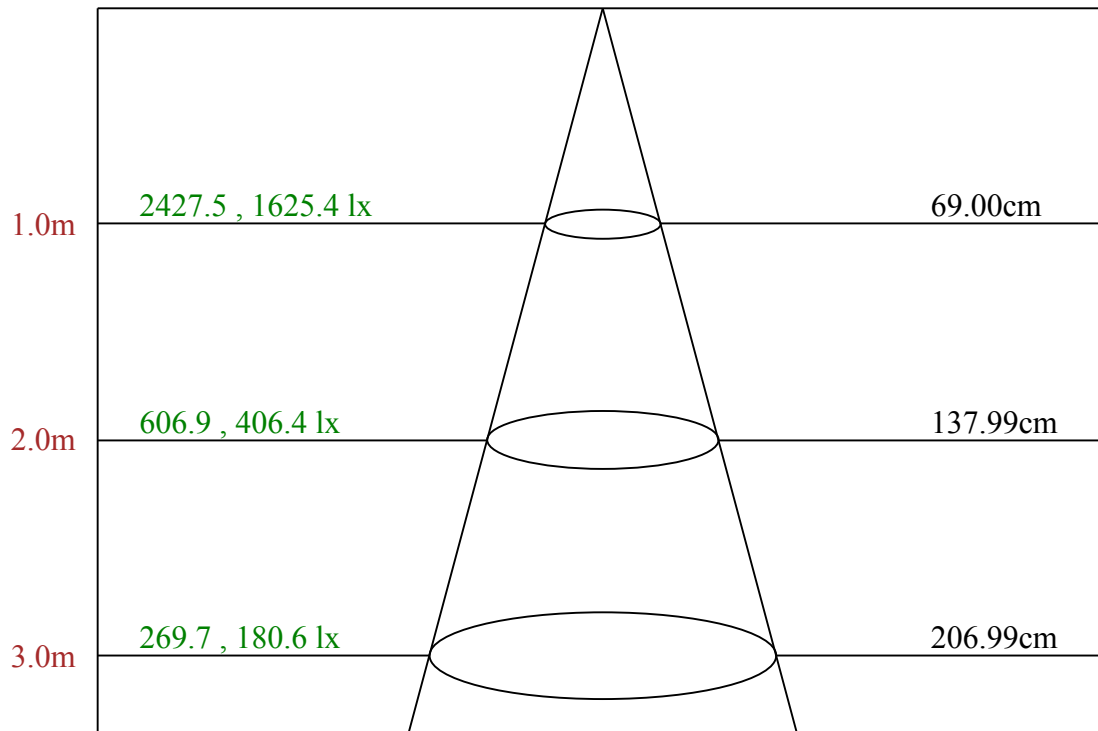
Average BeamAngle(IEC 61341): 38.07

Equipment: equipamento lumini
Temperature(°C): 25.5

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

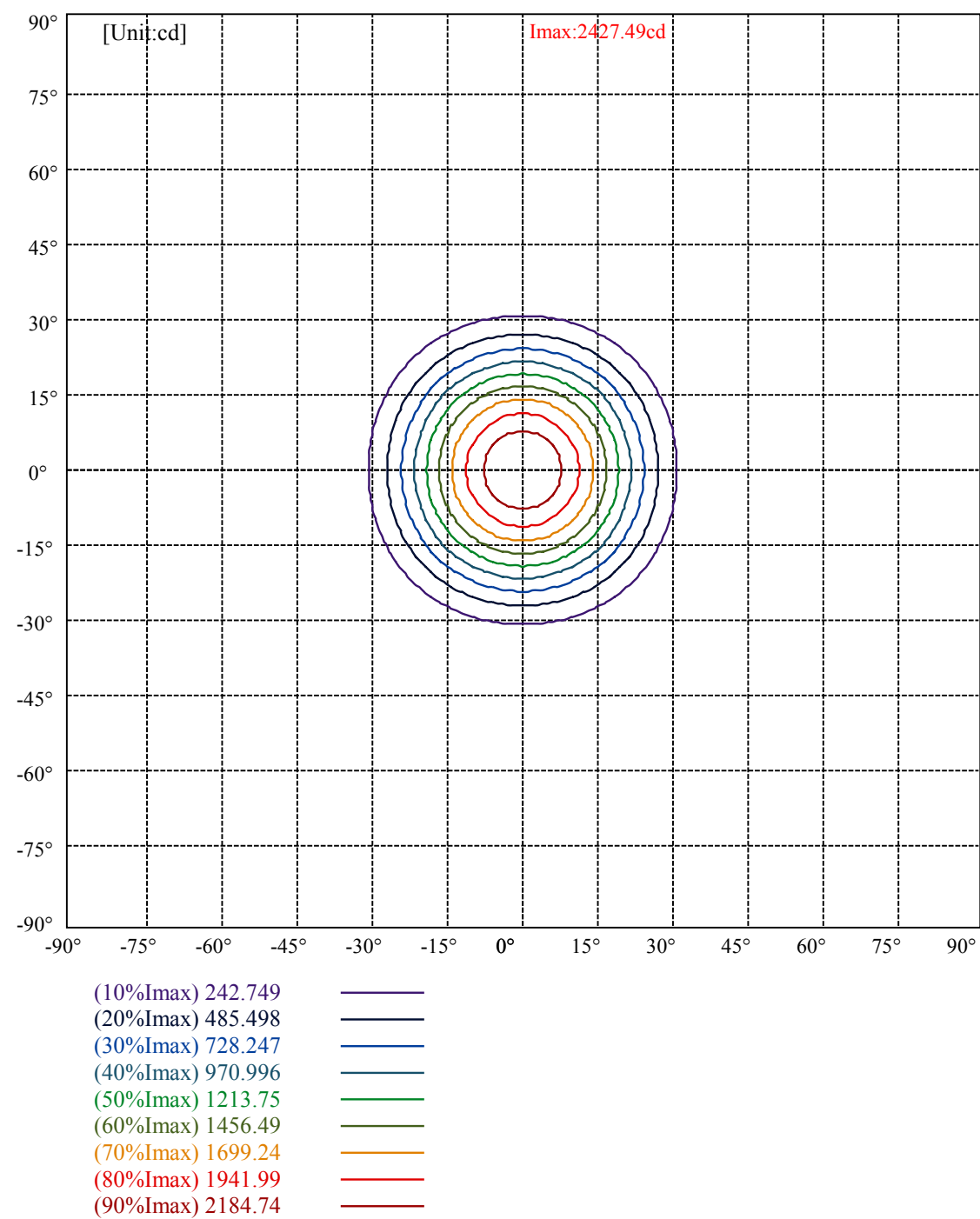
Operator: 01
Distance(m): 6.90





Max , Ave

Beam angle of C0 plane 38.07



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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	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

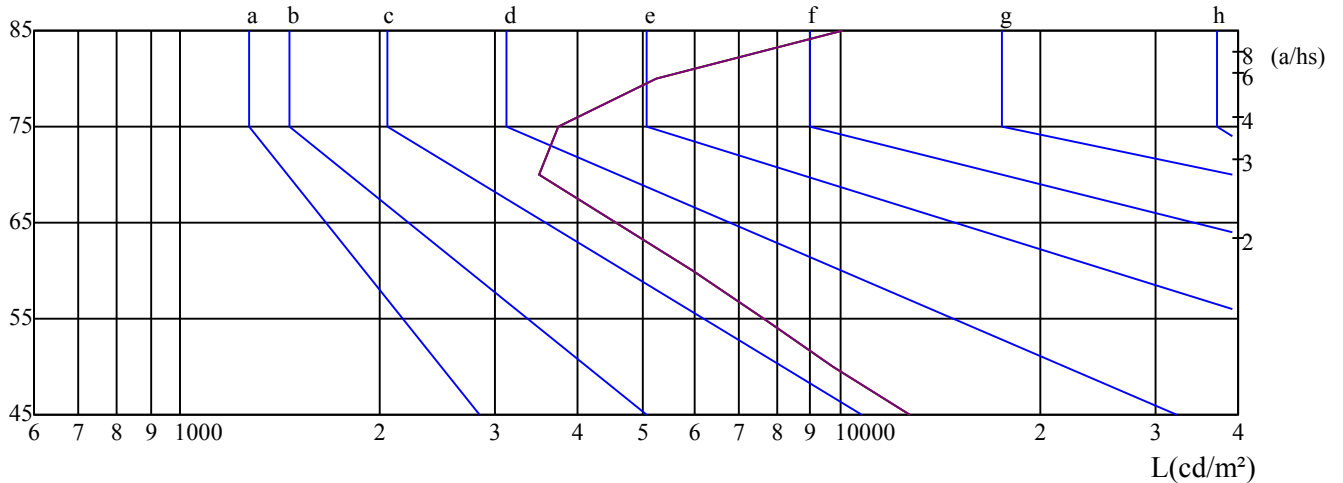
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4571	4571	4571	3747	3747	3747	10068	10068	10068

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

$\gamma(^{\circ})$



C0 ———

C45 ———

C90 ———

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

Date: 5/9/2024
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	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



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LumCAT:

Luminaire: no frame flex sm a dtw e fc

LampCAT: modulo led dtw 12W 27K irc 90

Ballast type: led driver 700mA

Report No:

Voltage(V): 127.7800

Test No:

Current(A): 0.1130

Number of Lamps: 1

Power (W): 14.1220

Lamp flux(lm): 924.0

PF: 0.9760

Length(mm): 55

Width(mm): 55

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 650.56, Efficiency(%): 70.41% , Luminous Efficacy(lm/W): 46.07

Central intensity(cd): 3030.769, Maximum intensity(cd): 3030.769

Angle of maximum intensity: C=0.0 γ =0.0

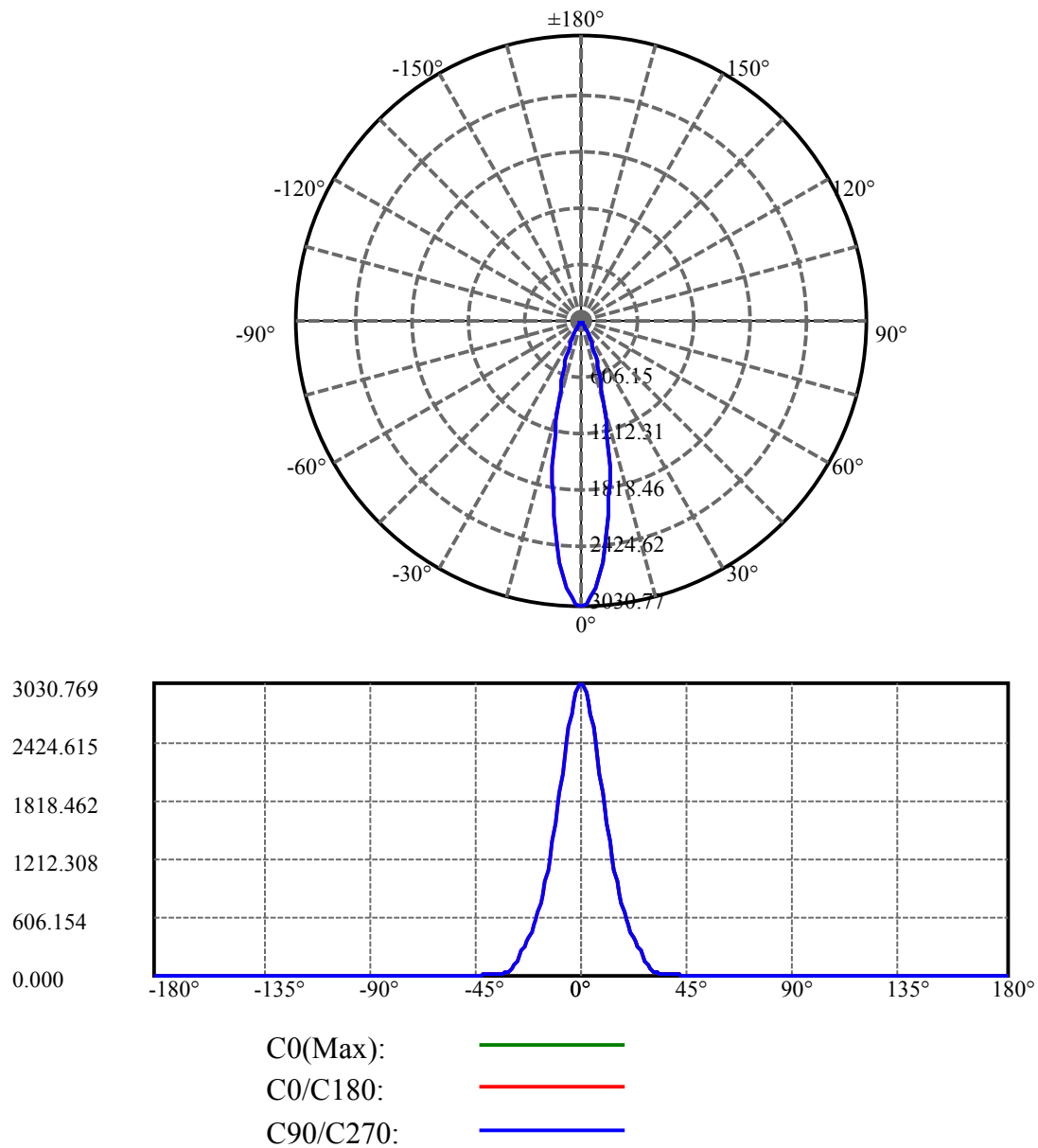
Beam angle of C0 plane : 22.69

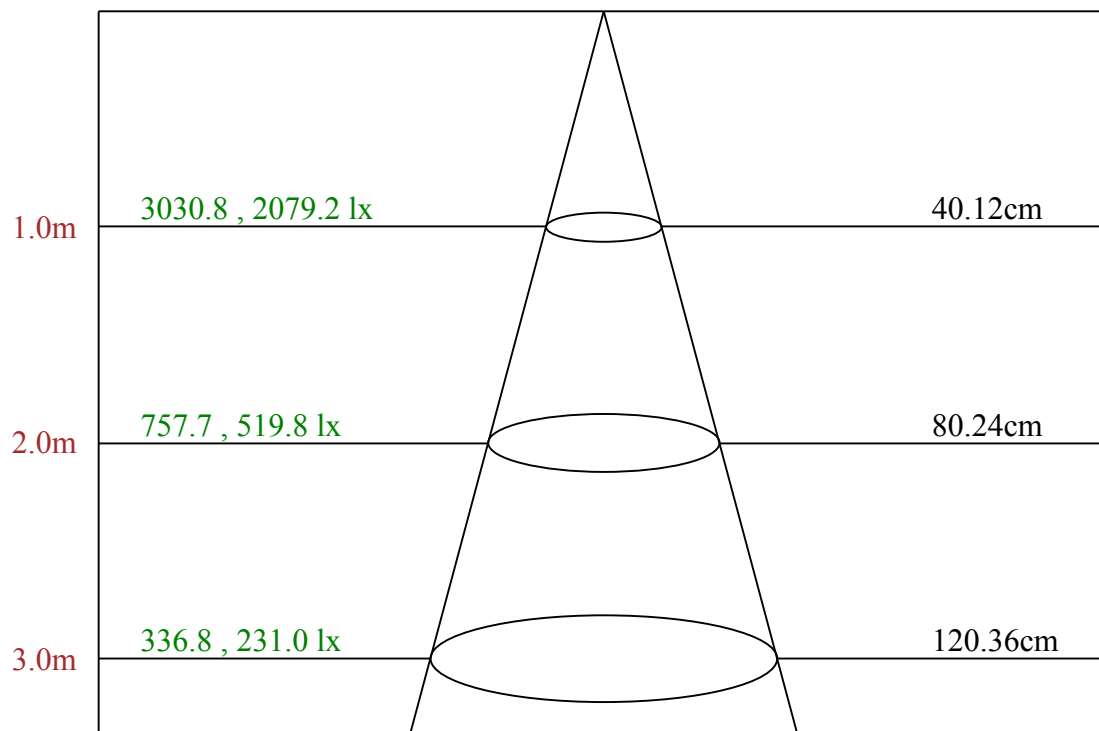
Aveage BeamAngle(IEC 61341):22.69

Equipment: equipamento lumini
Temperature(°C): 25.0

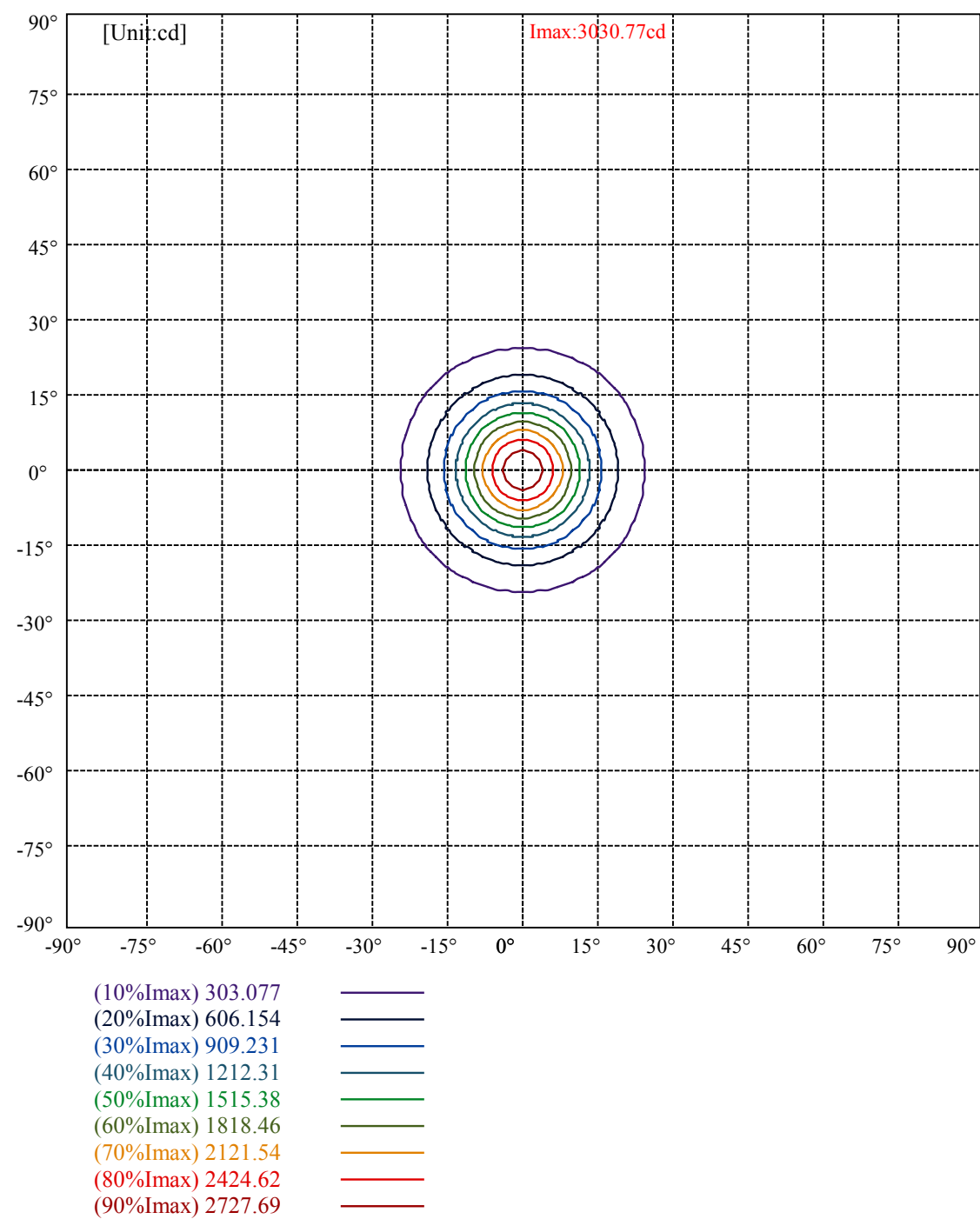
Date: 29/05/2025
Humidity(%): 58.0%

Operator: 01
Distance(m): 6.90





Max , Ave Beam angle of C0 plane 22.69



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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	3411	2831	2813	2829	2705	2318	2896	4056	7788
C45	3411	2831	2813	2829	2705	2318	2896	4056	7788
C90	3411	2831	2813	2829	2705	2318	2896	4056	7788

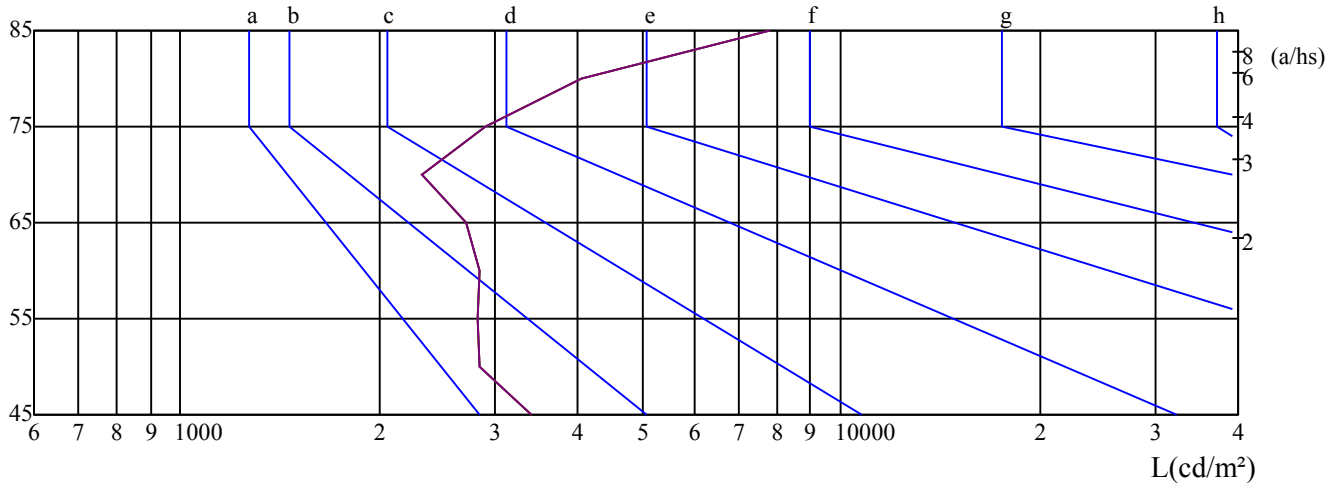
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2705	2705	2705	2896	2896	2896	7788	7788	7788

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($^{\circ}$ C): 25.0

Date: 29/05/2025
Humidity(%): 58.0%

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	7.09	7.99	7.50	8.35	8.72	7.43	8.33	7.83	8.68	9.05
	3H	8.19	9.00	8.62	9.38	9.78	8.59	9.39	9.02	9.77	10.17
	4H	8.86	9.60	9.30	10.00	10.42	9.18	9.92	9.62	10.32	10.74
	6H	9.90	10.58	10.36	11.00	11.45	10.12	10.80	10.58	11.22	11.67
	8H	10.55	11.20	11.01	11.62	12.08	10.70	11.35	11.16	11.78	12.24
	12H	11.40	12.01	11.87	12.45	12.92	11.47	12.08	11.94	12.52	12.99
4H	2H	7.56	8.31	8.01	8.70	9.12	7.84	8.58	8.28	8.98	9.40
	3H	8.82	9.45	9.29	9.88	10.35	9.13	9.76	9.60	10.20	10.67
	4H	9.73	10.27	10.20	10.73	11.23	9.97	10.50	10.44	10.97	11.47
	6H	10.97	11.44	11.48	11.94	12.44	11.11	11.59	11.62	12.08	12.58
	8H	11.78	12.22	12.30	12.72	13.24	11.87	12.31	12.39	12.80	13.33
	12H	12.82	13.23	13.35	13.72	14.29	12.83	13.23	13.36	13.72	14.29
8H	4H	10.06	10.50	10.58	11.00	11.52	10.27	10.71	10.79	11.20	11.73
	6H	11.61	11.97	12.15	12.48	13.05	11.71	12.07	12.26	12.59	13.15
	8H	12.68	12.98	13.25	13.54	14.08	12.73	13.03	13.30	13.59	14.13
	12H	13.99	14.21	14.57	14.77	15.34	13.96	14.19	14.54	14.74	15.31
12H	4H	10.16	10.57	10.69	11.06	11.63	10.36	10.77	10.89	11.26	11.83
	6H	11.87	12.17	12.44	12.73	13.28	11.97	12.27	12.54	12.83	13.38
	8H	13.02	13.25	13.60	13.80	14.37	13.06	13.29	13.64	13.85	14.42
Variation with the observer position at spacings:											
S = 1.0H		1.0/-0.9					1.0/-0.9				
S = 1.5H		1.2/-1.2					1.2/-1.2				
S = 2.0H		1.4/-0.9					1.4/-0.9				
Standard tables:		BKBF					BKBF				
Uncorrected UGR		-3.8					-3.8				

依据 CIE Publ. 117 □ 算 UGR, S/H = 0.25



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LumCAT:

Luminaire: no frame flex sm a dtw e fm

LampCAT: modulo led dtw 12W 27K irc 90

Ballast type: led driver 700mA

Report No:

Voltage(V): 127.7900

Test No:

Current(A): 0.1140

Number of Lamps: 1

Power (W): 14.1610

Lamp flux(lm): 924.0

PF: 0.9760

Length(mm): 55

Width(mm): 55

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 649.02, Efficiency(%): 70.24% , Luminous Efficacy(lm/W): 45.83

Central intensity(cd): 2982.635, Maximum intensity(cd): 2982.635

Angle of maximum intensity: C=0.0 γ =0.0

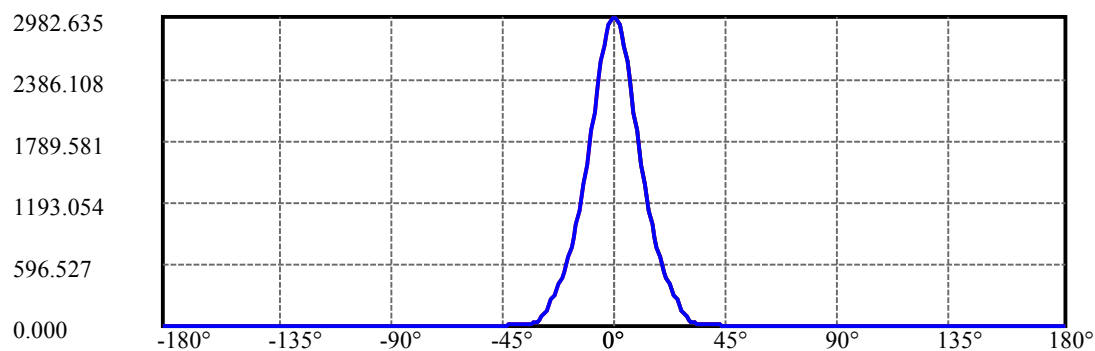
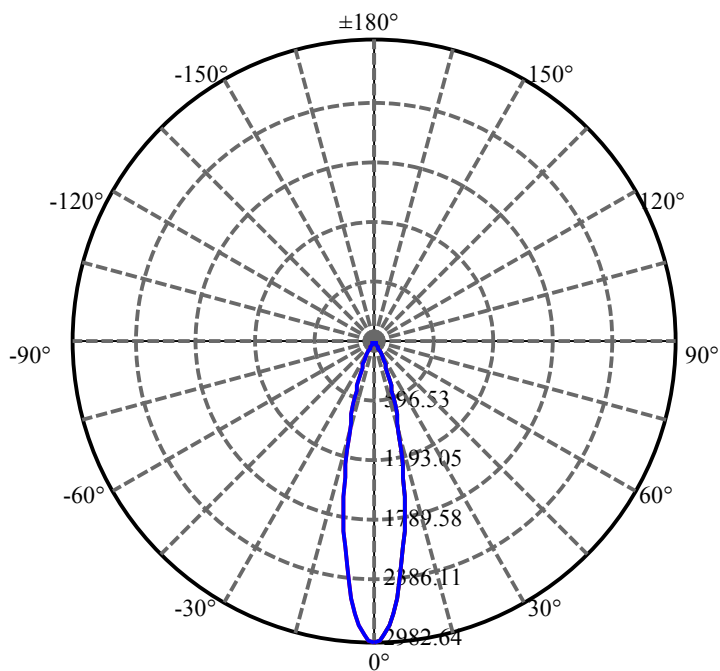
Beam angle of C0 plane : 22.77

Average BeamAngle(IEC 61341): 22.77

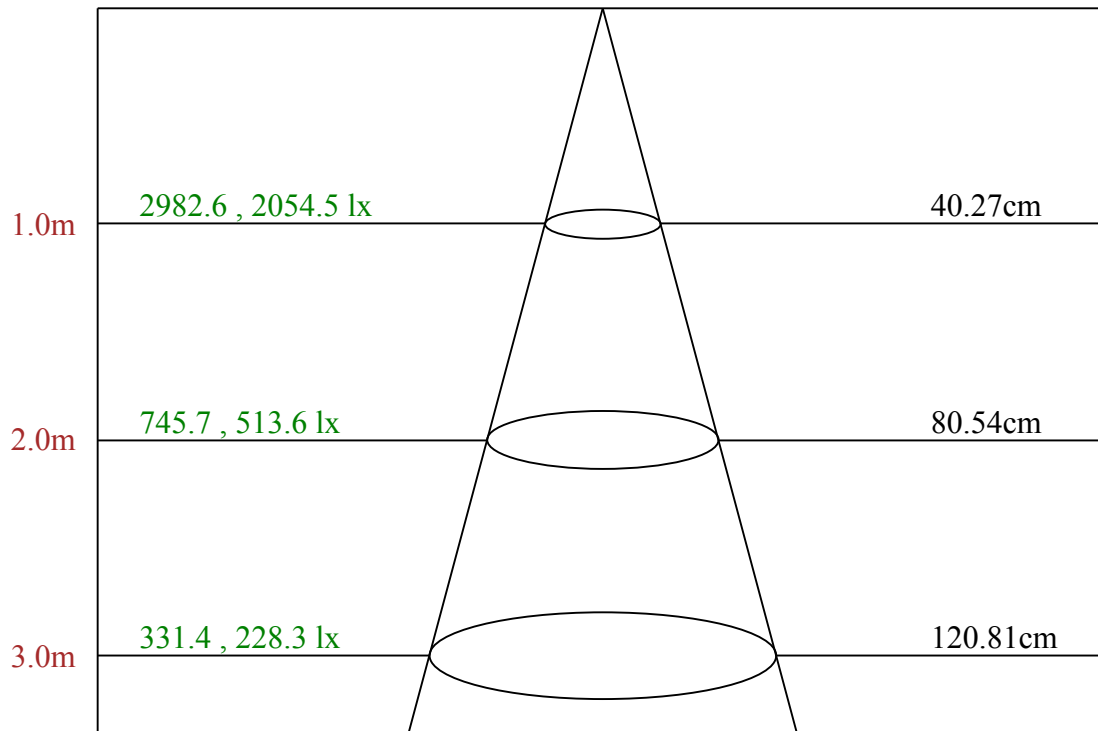
Equipment: equipamento lumini
Temperature(°C): 25.0

Date: 29/05/2025
Humidity(%): 58.0%

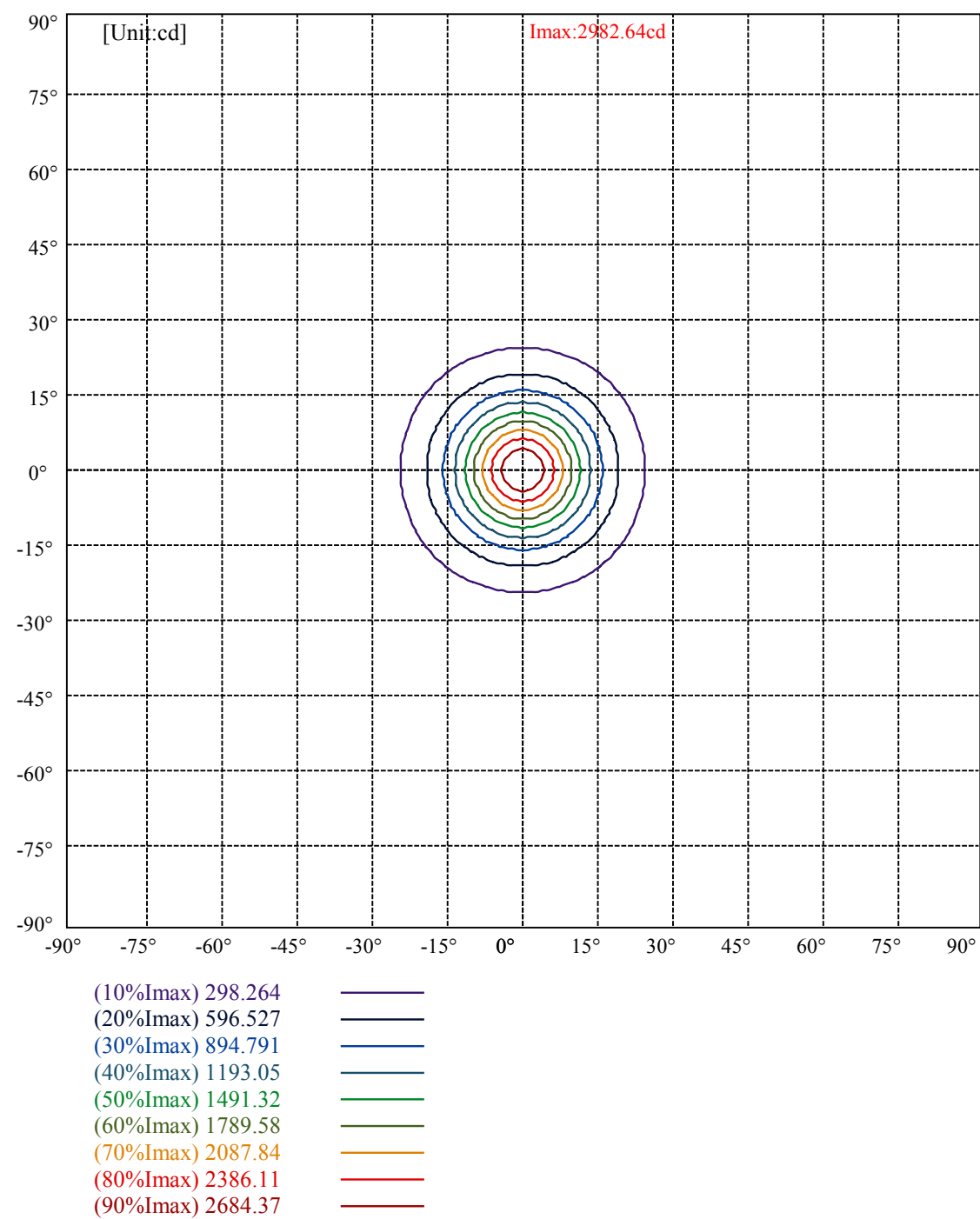
Operator: 01
Distance(m): 6.90



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



Max , Ave Beam angle of C0 plane 22.77



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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	3417	2834	2778	2790	2681	2347	2866	4101	7788
C45	3417	2834	2778	2790	2681	2347	2866	4101	7788
C90	3417	2834	2778	2790	2681	2347	2866	4101	7788

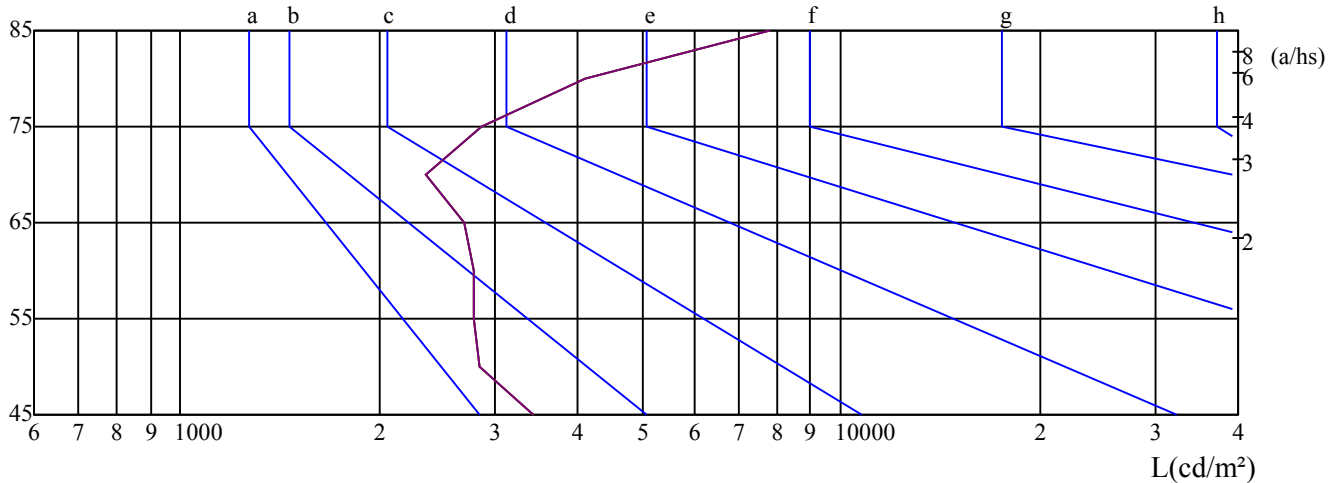
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2681	2681	2681	2866	2866	2866	7788	7788	7788

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($^{\circ}\text{C}$): 25.0

Date: 29/05/2025
Humidity(%): 58.0%

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	6.80	7.70	7.21	8.06	8.43	7.22	8.12	7.62	8.47	8.84
	3H	7.91	8.71	8.33	9.09	9.49	8.34	9.14	8.77	9.52	9.92
	4H	8.61	9.36	9.05	9.75	10.17	8.96	9.71	9.41	10.10	10.53
	6H	9.67	10.34	10.13	10.77	11.22	9.93	10.60	10.38	11.02	11.48
	8H	10.32	10.97	10.78	11.39	11.85	10.55	11.19	11.01	11.62	12.08
	12H	11.15	11.76	11.61	12.20	12.67	11.35	11.96	11.82	12.40	12.87
4H	2H	7.25	7.99	7.69	8.39	8.81	7.59	8.33	8.03	8.73	9.15
	3H	8.53	9.15	8.99	9.59	10.06	8.87	9.50	9.34	9.94	10.40
	4H	9.49	10.02	9.96	10.49	10.99	9.75	10.29	10.23	10.75	11.25
	6H	10.75	11.22	11.26	11.72	12.22	10.93	11.41	11.44	11.90	12.40
	8H	11.57	12.01	12.09	12.51	13.03	11.73	12.17	12.25	12.67	13.19
	12H	12.58	12.99	13.11	13.48	14.05	12.73	13.13	13.26	13.63	14.19
8H	4H	9.85	10.29	10.37	10.79	11.31	10.07	10.51	10.59	11.01	11.53
	6H	11.42	11.78	11.96	12.30	12.86	11.57	11.93	12.11	12.44	13.00
	8H	12.51	12.81	13.08	13.37	13.91	12.63	12.93	13.20	13.49	14.04
	12H	13.78	14.01	14.36	14.56	15.13	13.90	14.12	14.47	14.68	15.25
12H	4H	9.96	10.37	10.49	10.86	11.43	10.17	10.58	10.70	11.07	11.64
	6H	11.70	12.00	12.27	12.56	13.11	11.84	12.13	12.41	12.69	13.24
	8H	12.87	13.10	13.45	13.65	14.22	12.98	13.21	13.56	13.76	14.33
Variation with the observer position at spacings:											
S = 1.0H		1.0/-0.9					1.0/-0.9				
S = 1.5H		1.2/-1.2					1.2/-1.2				
S = 2.0H		1.4/-0.9					1.4/-0.9				
Standard tables:		BKBF					BKBF				
Uncorrected UGR		-3.8					-3.8				

依据CIE Publ. 117 □算 UGR, S/H = 0.25



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LumCAT:

Luminaire: no frame flex sm a dtw e fa

LampCAT: modulo led dtw 12W 27K irc 90

Ballast type: led driver 700mA

Report No:

Voltage(V): 127.7900

Test No:

Current(A): 0.1130

Number of Lamps: 1

Power (W): 14.1510

Lamp flux(lm): 924.0

PF: 0.9760

Length(mm): 55

Width(mm): 55

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 631.32, Efficiency(%): 68.32% , Luminous Efficacy(lm/W): 44.61

Central intensity(cd): 1533.506, Maximum intensity(cd): 1533.923

Angle of maximum intensity: C=0.0 γ =1.0

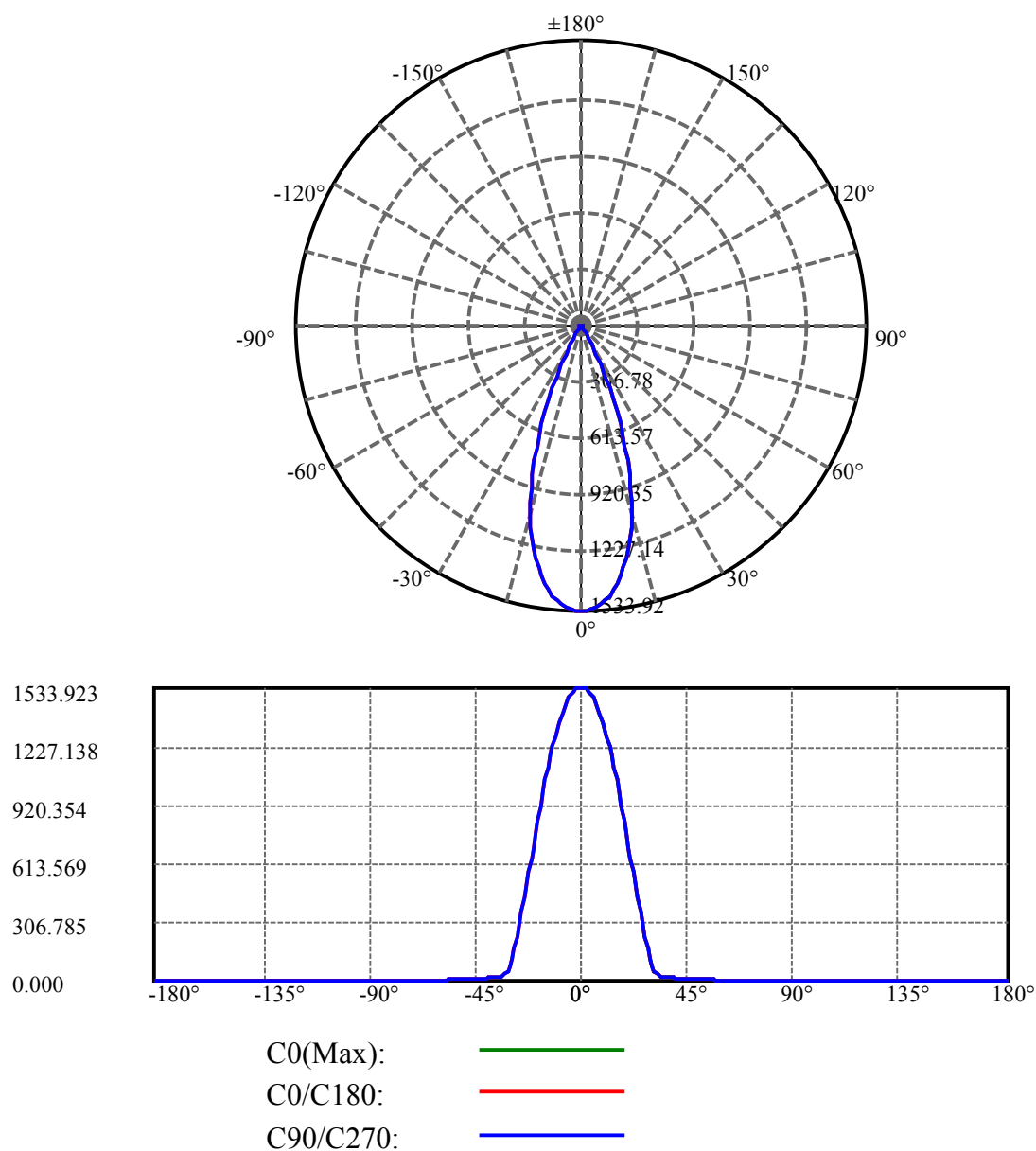
Beam angle of C0 plane : 38.01

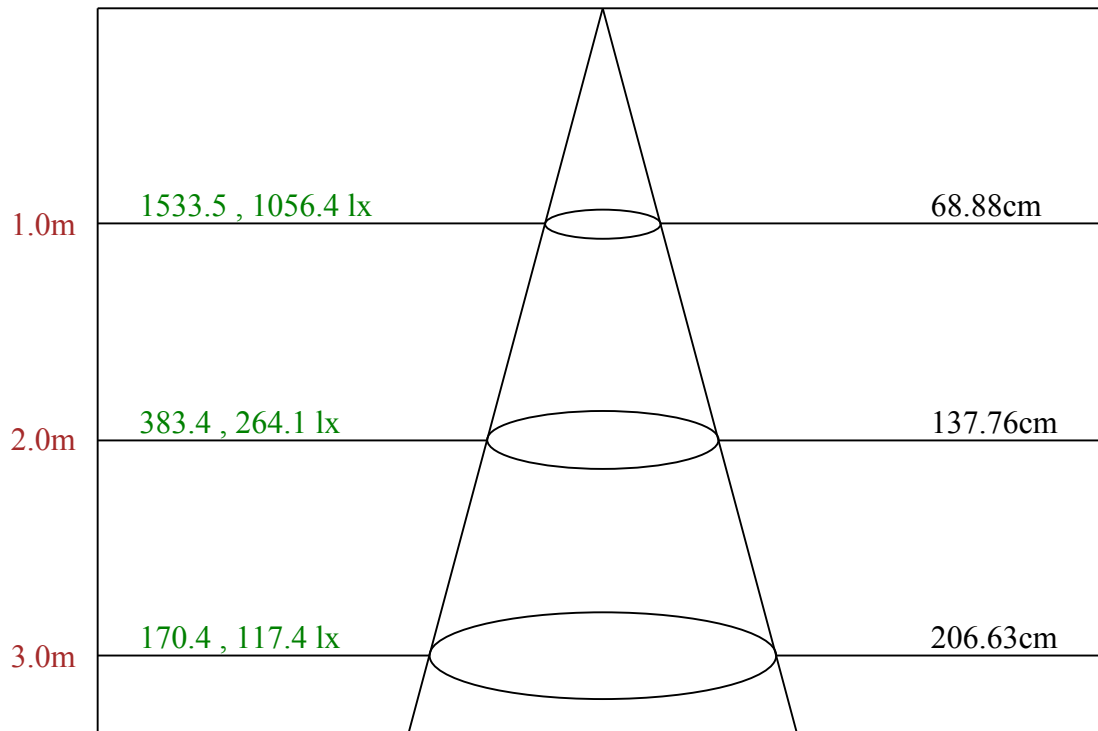
Aveage BeamAngle(IEC 61341):38.01

Equipment: equipamento lumini
Temperature(°C): 25.0

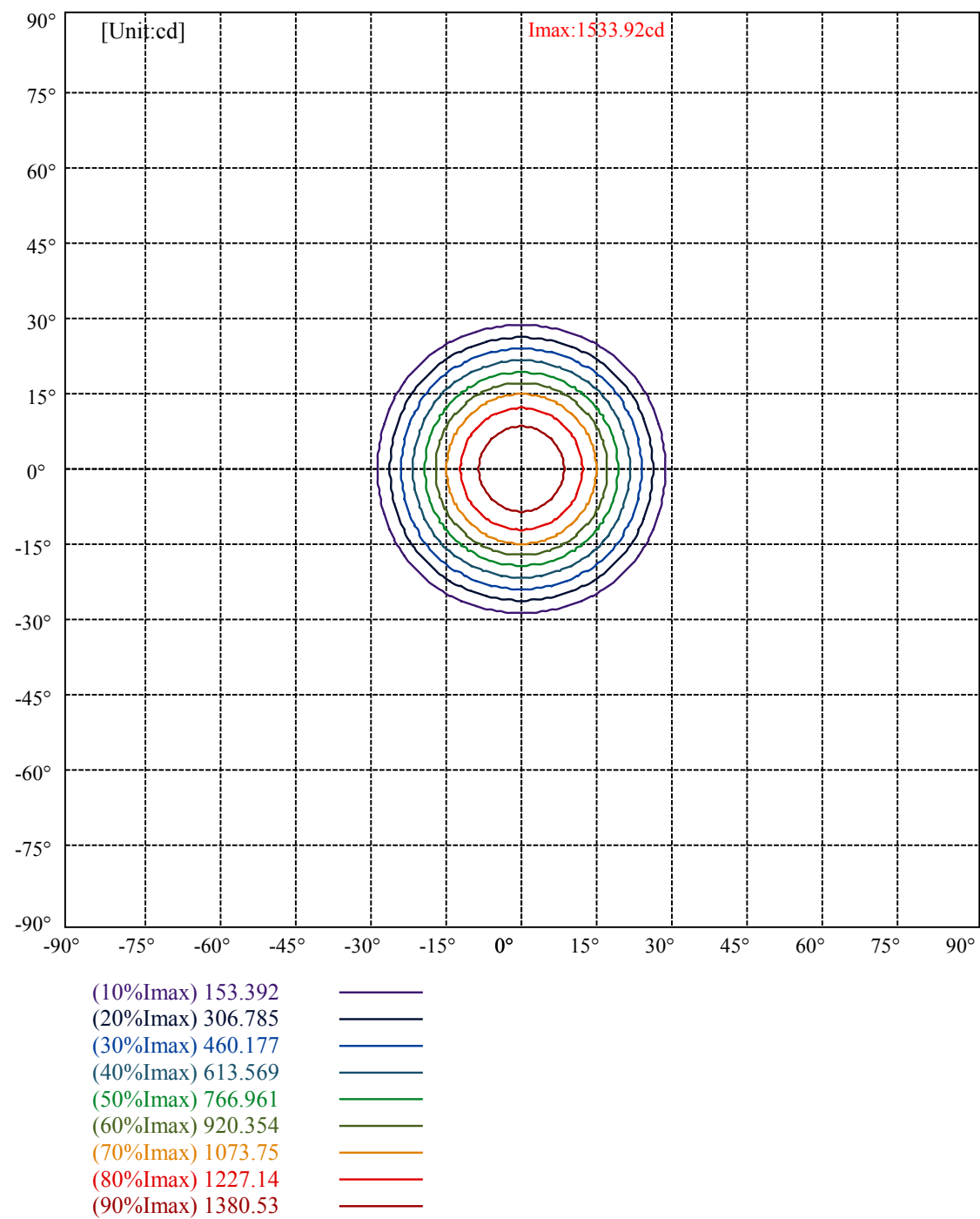
Date: 29/05/2025
Humidity(%): 58.0%

Operator: 01
Distance(m): 6.90





Max , Ave Beam angle of C0 plane 38.01



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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	4463	3578	3025	2758	2616	2238	2721	3841	7246
C45	4463	3578	3025	2758	2616	2238	2721	3841	7246
C90	4463	3578	3025	2758	2616	2238	2721	3841	7246

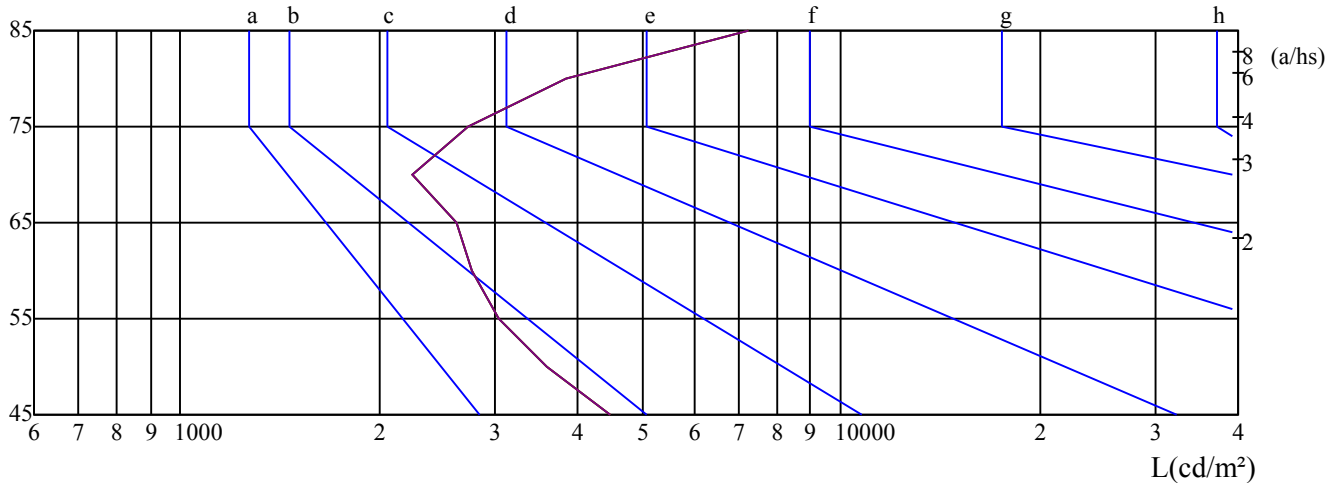
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2616	2616	2616	2721	2721	2721	7246	7246	7246

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($^{\circ}$ C): 25.0

Date: 29/05/2025
Humidity(%): 58.0%

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	7.80	8.70	8.20	9.06	9.43	8.25	9.15	8.65	9.51	9.88
	3H	8.64	9.45	9.07	9.83	10.23	9.08	9.88	9.50	10.26	10.66
	4H	9.18	9.93	9.62	10.32	10.74	9.53	10.28	9.97	10.67	11.09
	6H	10.02	10.70	10.48	11.12	11.57	10.28	10.96	10.74	11.38	11.83
	8H	10.58	11.23	11.04	11.66	12.12	10.80	11.45	11.26	11.87	12.33
	12H	11.32	11.93	11.78	12.37	12.84	11.47	12.08	11.93	12.52	12.98
4H	2H	8.12	8.87	8.56	9.26	9.68	8.50	9.25	8.94	9.64	10.06
	3H	9.13	9.75	9.59	10.19	10.66	9.48	10.10	9.94	10.54	11.01
	4H	9.90	10.44	10.38	10.90	11.40	10.16	10.70	10.64	11.16	11.66
	6H	10.95	11.43	11.46	11.92	12.42	11.13	11.60	11.64	12.10	12.60
	8H	11.69	12.14	12.22	12.63	13.15	11.83	12.27	12.35	12.77	13.29
	12H	12.63	13.04	13.16	13.53	14.10	12.71	13.11	13.23	13.60	14.17
8H	4H	10.17	10.61	10.69	11.11	11.63	10.40	10.84	10.92	11.33	11.86
	6H	11.53	11.90	12.08	12.41	12.97	11.67	12.03	12.21	12.55	13.11
	8H	12.54	12.84	13.10	13.39	13.94	12.64	12.94	13.21	13.50	14.04
	12H	13.74	13.97	14.32	14.52	15.09	13.78	14.01	14.36	14.56	15.13
12H	4H	10.26	10.67	10.79	11.16	11.72	10.48	10.88	11.00	11.37	11.94
	6H	11.78	12.08	12.35	12.64	13.19	11.91	12.21	12.48	12.77	13.31
	8H	12.87	13.09	13.44	13.65	14.22	12.95	13.18	13.53	13.74	14.30
Variation with the observer position at spacings:											
S = 1.0H		1.2/-1.0					1.2/-1.0				
S = 1.5H		1.7/-1.1					1.7/-1.1				
S = 2.0H		2.2/-1.1					2.2/-1.1				
Standard tables:		BKBF					BKBF				
Uncorrected UGR		-3.5					-3.5				

依据CIE Publ. 117 □算 UGR, S/H = 0.25



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LumCAT:

Luminaire: no frame flex sm a e tr fm

LampCAT: modulo led tr 5W 2700K irc 90

Ballast type:

Report No:

Voltage(V): 127.0000

Test No:

Current(A): 0.0390

Number of Lamps: 1

Power (W): 4.7000

Lamp flux(lm): 290.0

PF: 0.9300

Length(mm): 55

Width(mm): 55

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 199.90, Efficiency(%): 68.93% , Luminous Efficacy(lm/W): 42.53

Central intensity(cd): 678.704, Maximum intensity(cd): 678.704

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

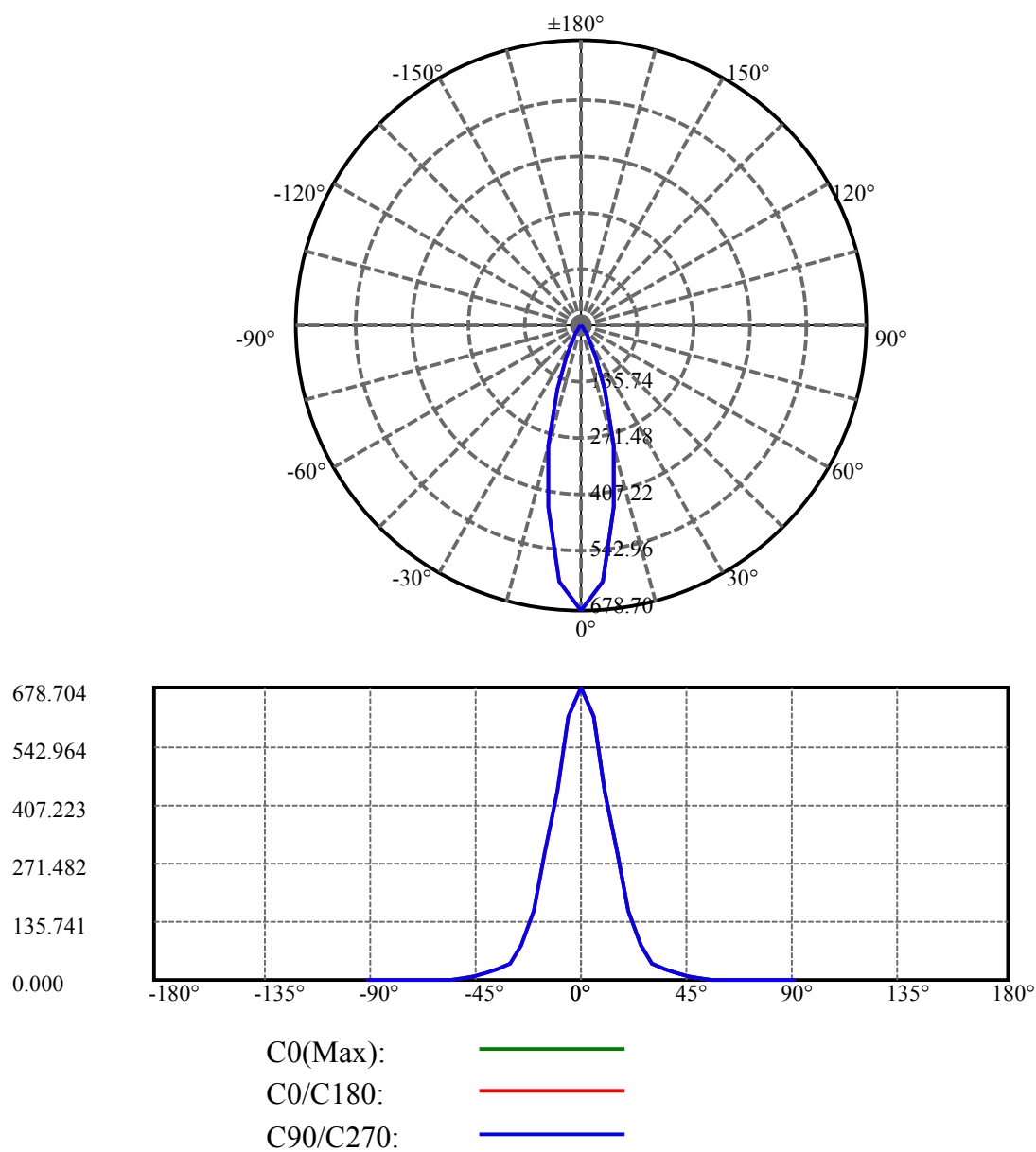
Beam angle of C0 plane : 26.91

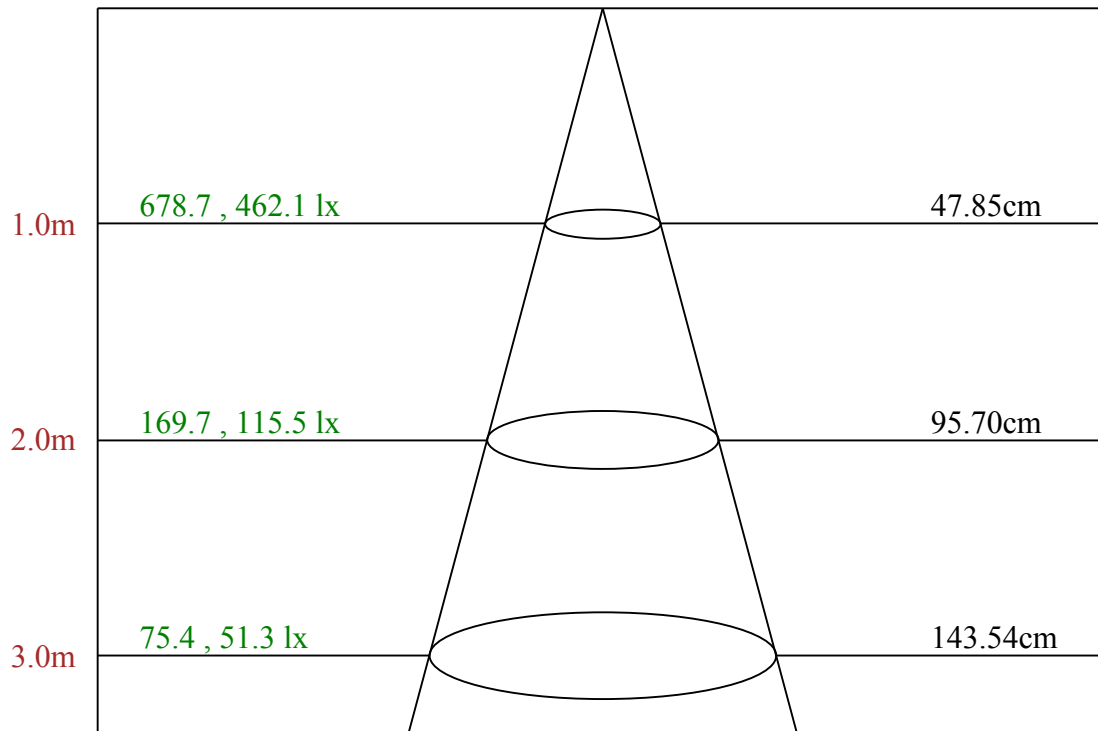
Average BeamAngle(IEC 61341): 26.91

Equipment: equipamento lumini
Temperature(°C): 25.0

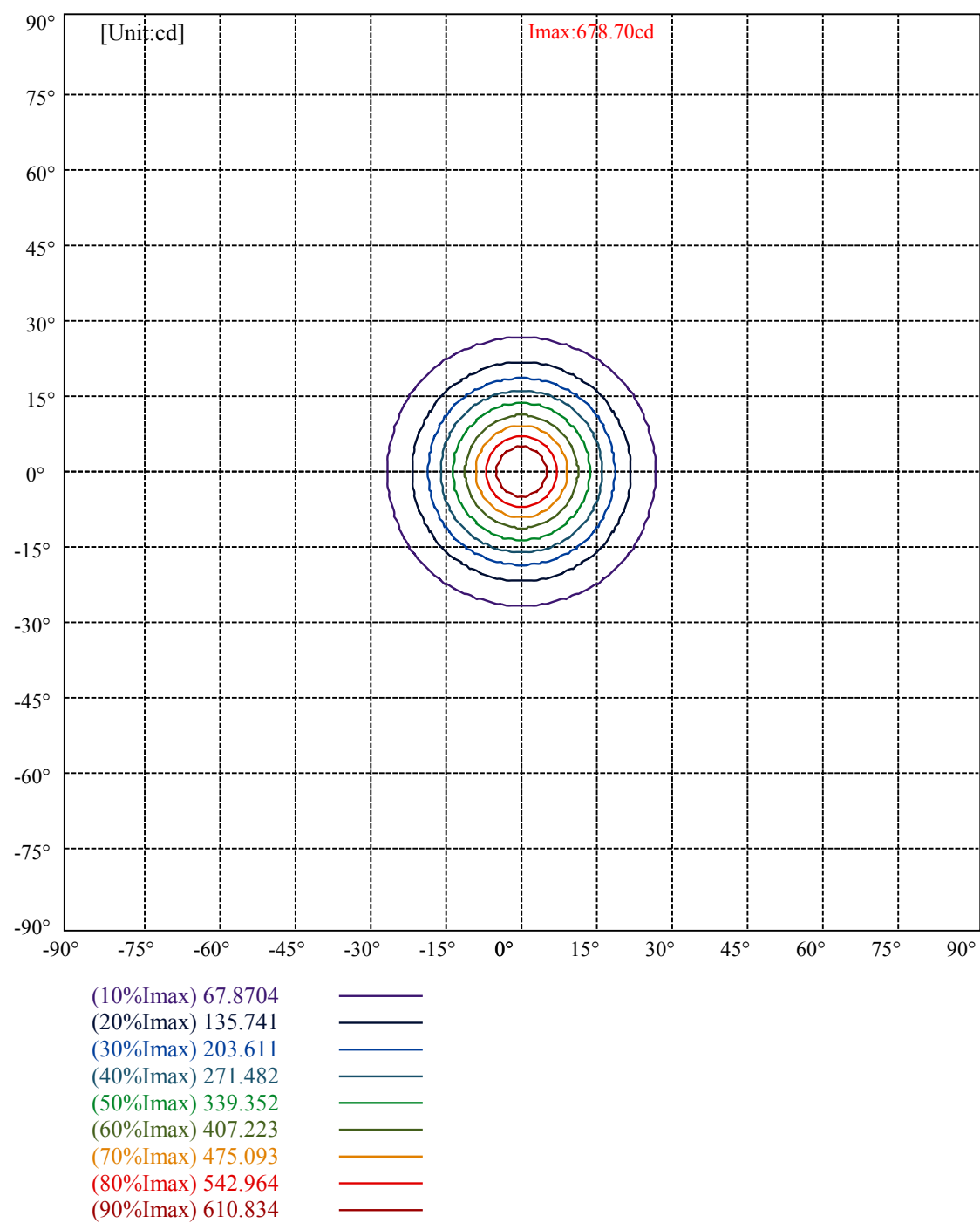
Date: 11/29/2023
Humidity(%): 55.0%

Operator: 01
Distance(m): 6.90





Max , Ave Beam angle of C0 plane 26.91



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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	4154	1907	1067	622	517	598	775	1008	1986
C45	4154	1907	1067	622	517	598	775	1008	1986
C90	4154	1907	1067	622	517	598	775	1008	1986

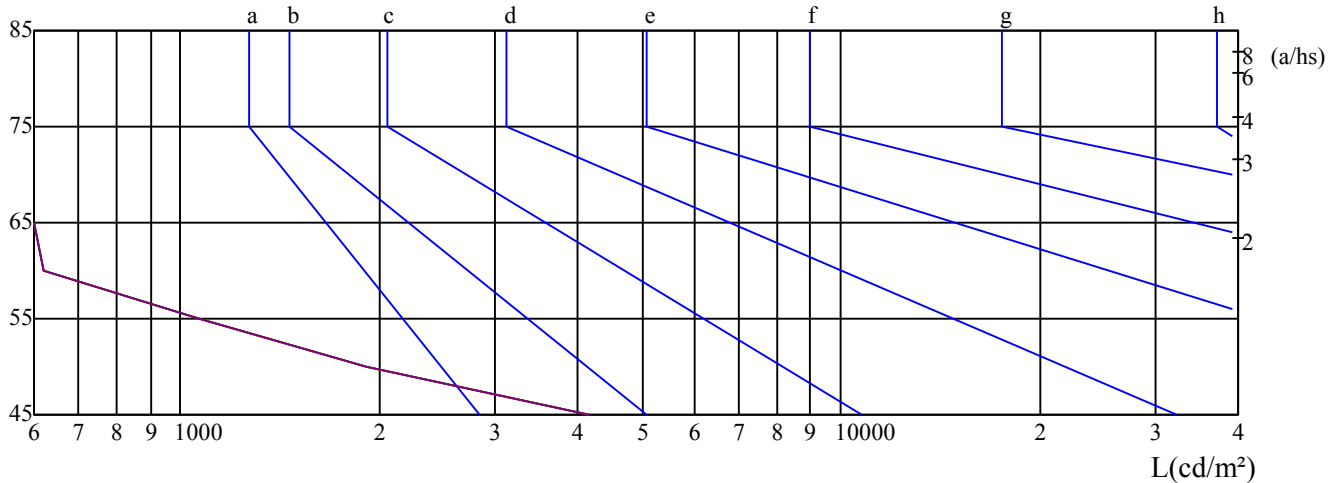
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
517	517	517	775	775	775	1986	1986	1986

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($^{\circ}$ C): 25.0

Date: 11/29/2023
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	11.02	11.98	11.39	12.29	12.61	10.53	11.49	10.89	11.80	12.11
	3H	10.90	11.75	11.29	12.08	12.43	10.41	11.26	10.80	11.60	11.94
	4H	10.89	11.67	11.29	12.03	12.39	10.39	11.18	10.80	11.53	11.90
	6H	10.95	11.66	11.37	12.04	12.44	10.46	11.18	10.88	11.56	11.96
	8H	10.99	11.67	11.41	12.06	12.47	10.53	11.21	10.95	11.59	12.00
	12H	11.11	11.75	11.53	12.15	12.56	10.67	11.31	11.09	11.71	12.12
4H	2H	10.77	11.55	11.17	11.90	12.27	10.28	11.07	10.68	11.42	11.79
	3H	10.65	11.30	11.08	11.70	12.12	10.18	10.84	10.61	11.23	11.65
	4H	10.73	11.29	11.17	11.72	12.17	10.25	10.82	10.69	11.24	11.69
	6H	10.85	11.35	11.32	11.80	12.25	10.39	10.89	10.86	11.34	11.80
	8H	11.00	11.46	11.48	11.92	12.39	10.57	11.03	11.06	11.49	11.96
	12H	11.26	11.68	11.75	12.14	12.66	10.87	11.30	11.36	11.75	12.27
8H	4H	10.62	11.09	11.11	11.54	12.02	10.16	10.63	10.65	11.08	11.56
	6H	10.86	11.24	11.37	11.72	12.23	10.44	10.81	10.94	11.29	11.81
	8H	11.17	11.49	11.71	12.01	12.51	10.79	11.10	11.32	11.63	12.12
	12H	11.61	11.85	12.16	12.37	12.90	11.28	11.52	11.82	12.04	12.56
12H	4H	10.60	11.03	11.09	11.48	12.00	10.15	10.57	10.64	11.03	11.55
	6H	10.93	11.25	11.47	11.77	12.27	10.52	10.83	11.05	11.36	11.86
	8H	11.27	11.51	11.81	12.03	12.55	10.90	11.14	11.44	11.66	12.18
Variation with the observer position at spacings:											
S = 1.0H		2.9/-5.3					2.9/-5.3				
S = 1.5H		5.0/-5.0					5.0/-5.0				
S = 2.0H		6.5/-4.2					6.5/-4.2				
Standard tables:		BK2					BK2				
Uncorrected UGR		-7.8					-7.8				

依据CIE Publ. 117 计算 UGR, S/H = 0.25



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LumCAT:

Luminaire: no frame flex sm a e tr fa

LampCAT: modulo led tr 5W 2700K irc 90

Ballast type:

Report No:

Voltage(V): 0.0000

Test No:

Current(A): 0.0000

Number of Lamps: 1

Power (W): 4.7000

Lamp flux(lm): 290.0

PF: 0.0000

Length(mm): 55

Width(mm): 55

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 200.80, Efficiency(%): 69.24% , Luminous Efficacy(lm/W): 42.72

Central intensity(cd): 212.198, Maximum intensity(cd): 212.198

Angle of maximum intensity: C=0.0 γ =0.0

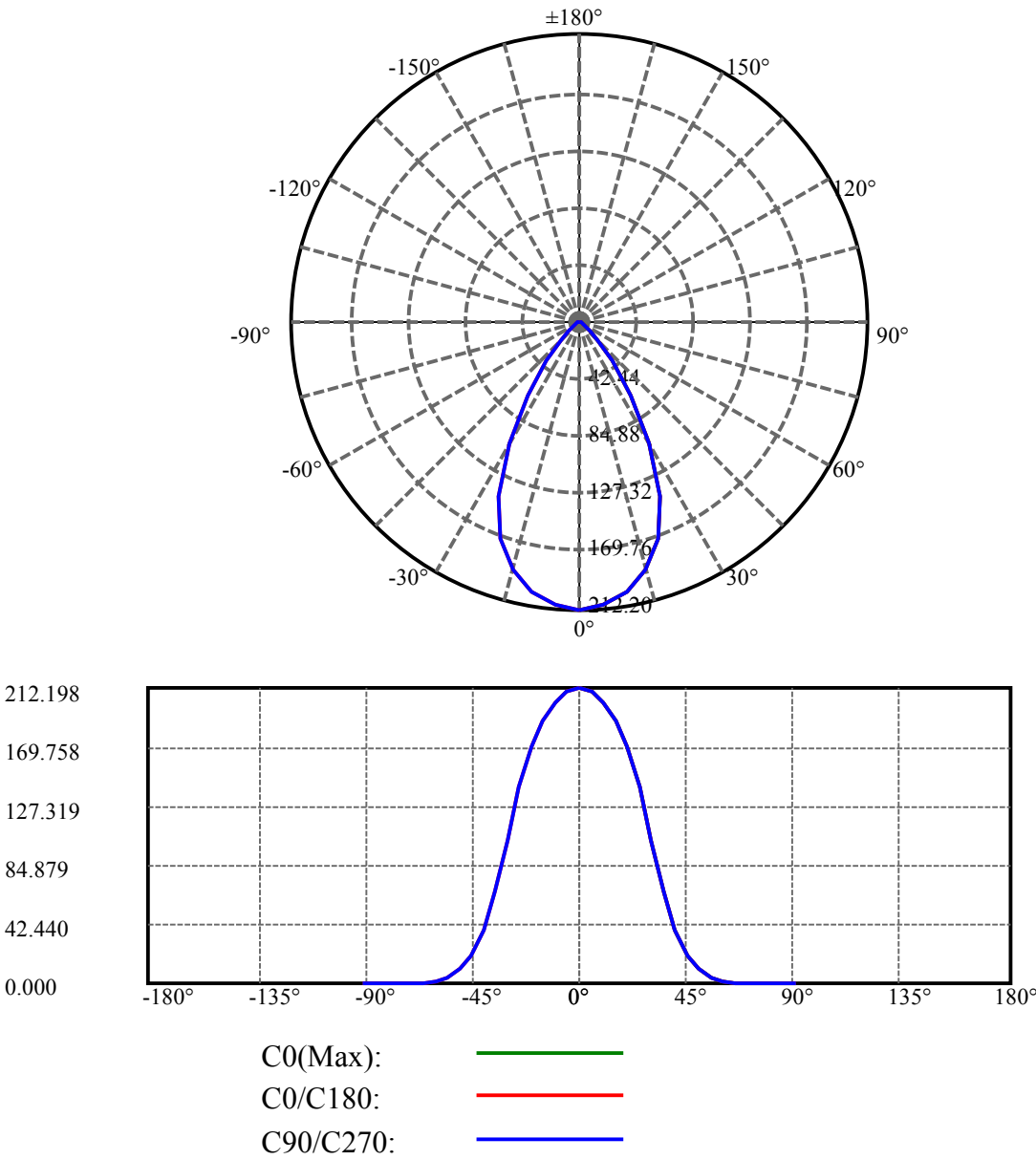
Beam angle of C0 plane : 59.11

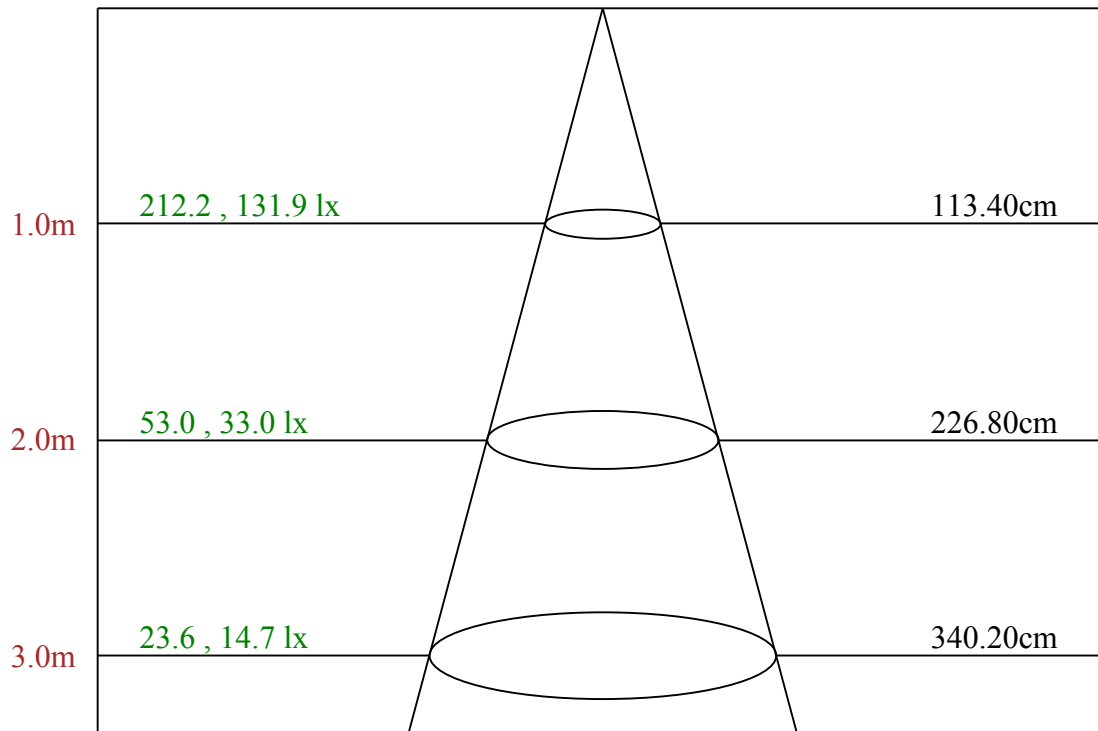
Aveage BeamAngle(IEC 61341):59.11

Equipment: equipamento lumini
Temperature(°C): 25.0

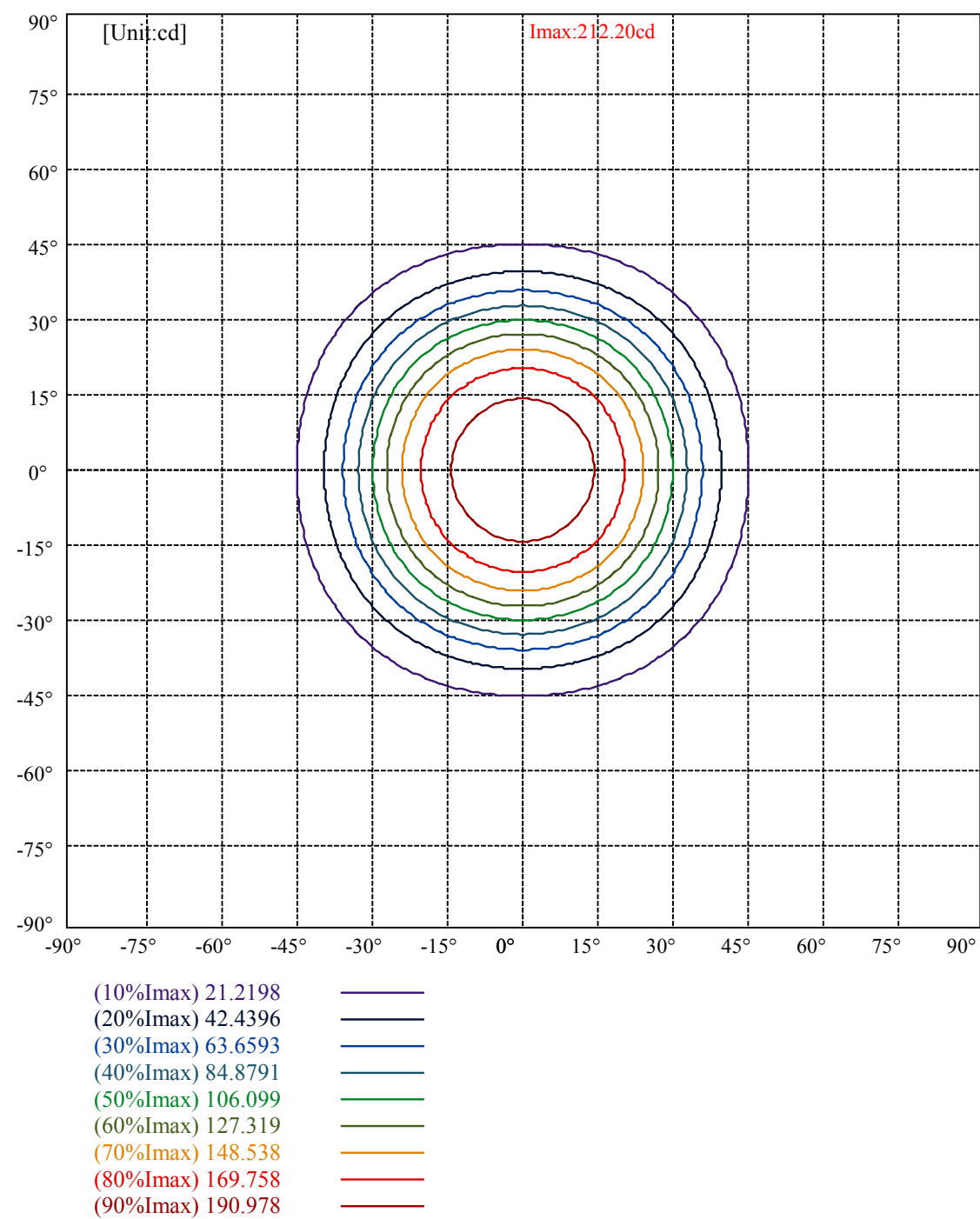
Date: 11/30/2023
Humidity(%): 55.0%

Operator: 01
Distance(m): 6.90





Max , Ave Beam angle of C0 plane 59.11



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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	9095	5185	2449	893	452	500	623	918	1761
C45	9095	5185	2449	893	452	500	623	918	1761
C90	9095	5185	2449	893	452	500	623	918	1761

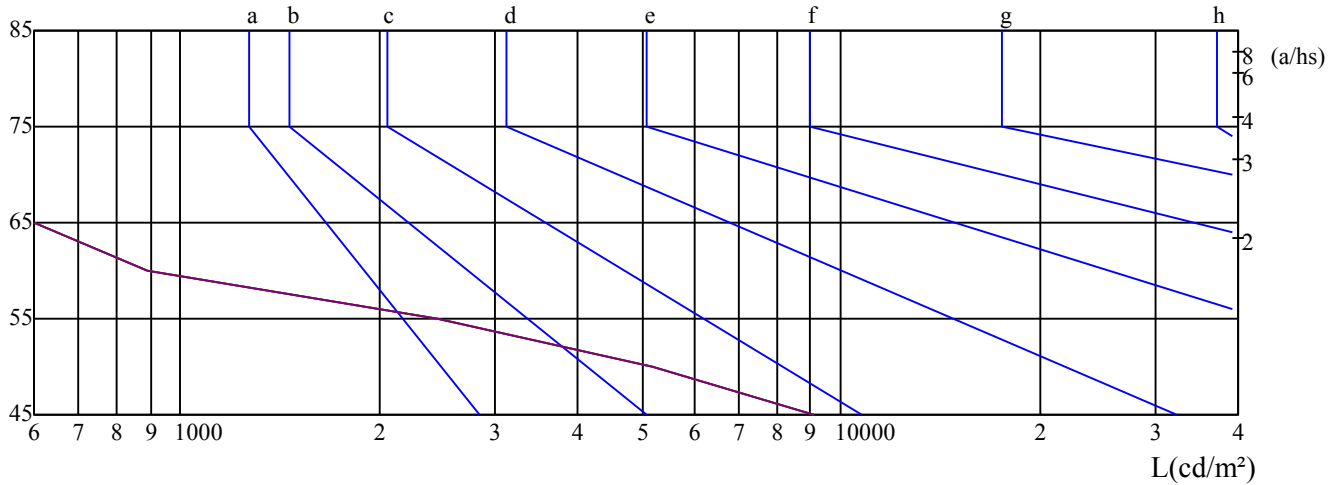
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
452	452	452	623	623	623	1761	1761	1761

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($^{\circ}$ C): 25.0

Date: 11/30/2023
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	16.72	17.75	17.08	18.06	18.38	18.05	19.08	18.41	19.39	19.71
	3H	16.53	17.45	16.92	17.79	18.13	17.86	18.77	18.24	19.11	19.46
	4H	16.45	17.29	16.85	17.65	18.01	17.76	18.61	18.16	18.96	19.33
	6H	16.38	17.15	16.80	17.53	17.93	17.69	18.47	18.11	18.84	19.24
	8H	16.33	17.07	16.75	17.45	17.86	17.63	18.37	18.05	18.76	19.16
	12H	16.29	16.99	16.71	17.38	17.80	17.58	18.28	18.01	18.68	19.10
4H	2H	16.47	17.31	16.87	17.67	18.04	17.78	18.62	18.18	18.98	19.35
	3H	16.25	16.96	16.68	17.35	17.77	17.56	18.26	17.98	18.65	19.07
	4H	16.20	16.81	16.64	17.23	17.68	17.49	18.10	17.93	18.52	18.97
	6H	16.10	16.63	16.57	17.09	17.54	17.38	17.92	17.85	18.37	18.82
	8H	16.08	16.57	16.56	17.03	17.50	17.35	17.84	17.83	18.30	18.77
	12H	16.08	16.54	16.57	16.99	17.51	17.34	17.80	17.83	18.25	18.77
8H	4H	16.01	16.51	16.50	16.97	17.44	17.30	17.80	17.79	18.26	18.73
	6H	15.92	16.32	16.42	16.80	17.31	17.19	17.60	17.69	18.07	18.59
	8H	15.96	16.30	16.49	16.83	17.32	17.21	17.56	17.74	18.08	18.58
	12H	16.01	16.28	16.55	16.80	17.32	17.23	17.50	17.77	18.02	18.54
12H	4H	15.96	16.42	16.45	16.87	17.39	17.25	17.71	17.74	18.16	18.68
	6H	15.91	16.26	16.44	16.78	17.28	17.18	17.52	17.71	18.05	18.54
	8H	15.93	16.20	16.47	16.72	17.24	17.17	17.44	17.71	17.96	18.48
Variation with the observer position at spacings:											
S = 1.0H		3.8/-7.7					3.8/-7.7				
S = 1.5H		6.4/-11.2					6.4/-11.2				
S = 2.0H		8.4/-10.3					8.4/-10.3				
Standard tables:		BK0					BK0				
Uncorrected UGR		-2.7					-2.7				

依据CIE Publ. 117 计算 UGR, S/H = 0.25



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LumCAT:

Luminaire: no frame flex sm a e tr fm

LampCAT: modulo led tr 9W 2700K irc 90

Ballast type:

Report No:

Voltage(V): 127.0000

Test No:

Current(A): 0.0730

Number of Lamps: 1

Power (W): 8.3800

Lamp flux(lm): 525.0

PF: 0.9300

Length(mm): 55

Width(mm): 55

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 333.37, Efficiency(%): 63.50% , Luminous Efficacy(lm/W): 39.78

Central intensity(cd): 573.808, Maximum intensity(cd): 573.808

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

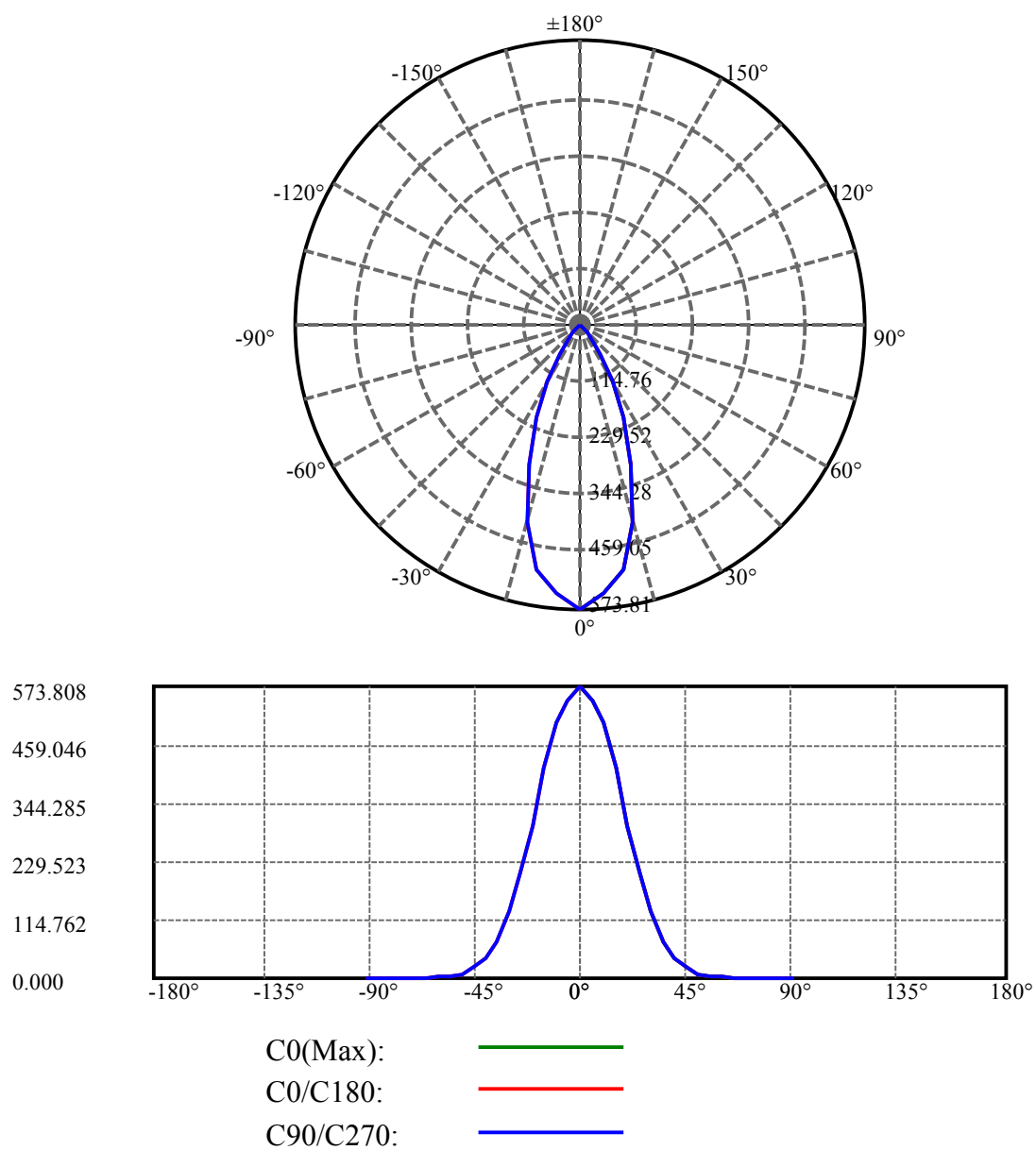
Beam angle of C0 plane : 41.40

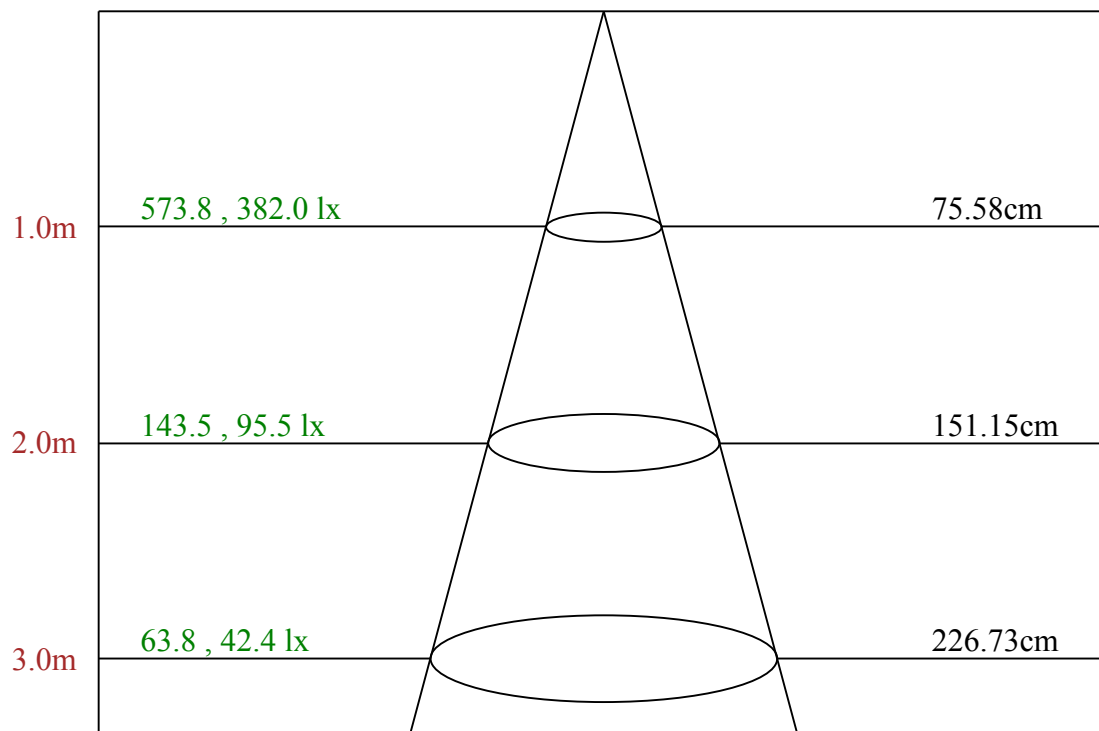
Average BeamAngle(IEC 61341): 41.40

Equipment: equipamento lumini
Temperature(°C): 25.0

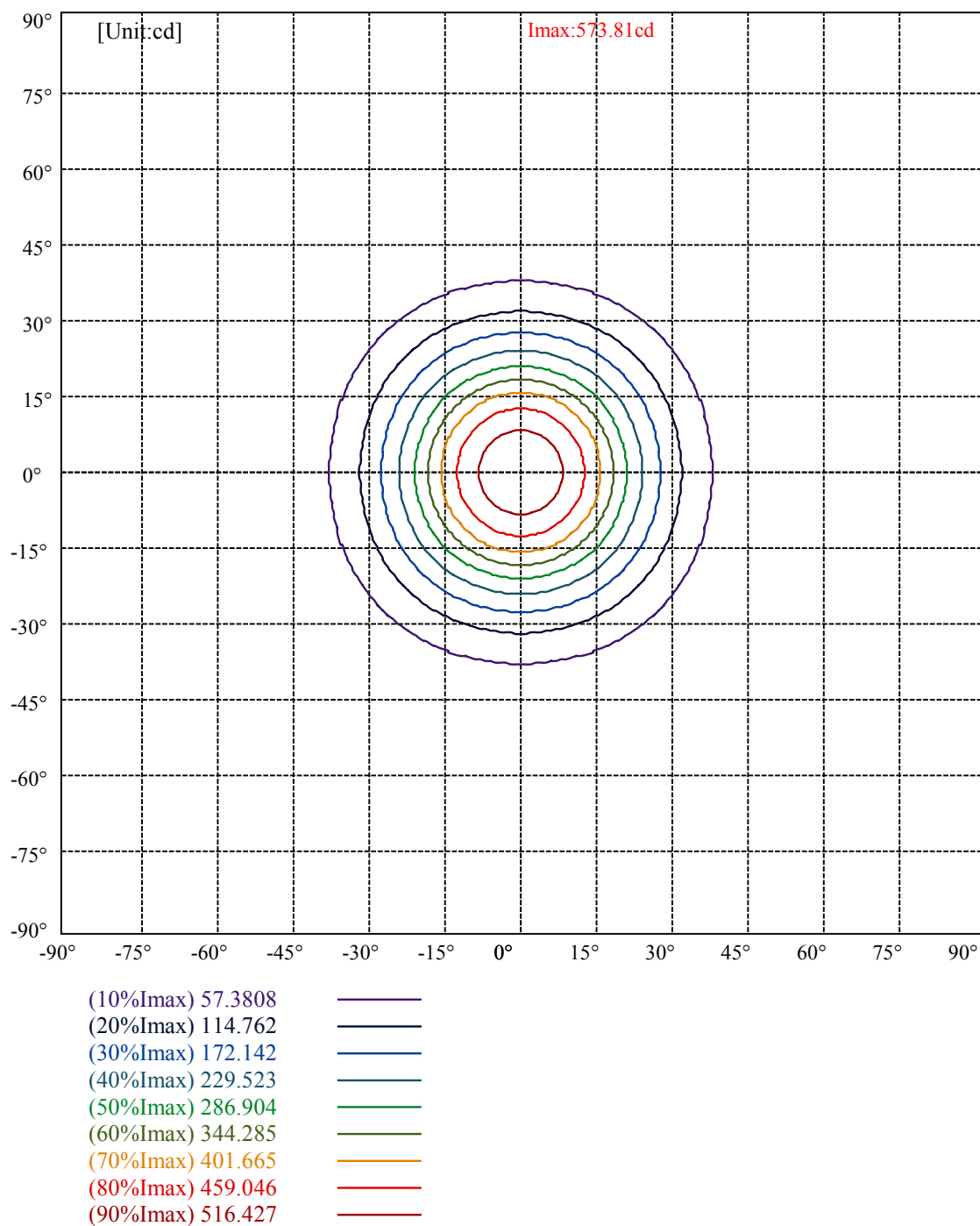
Date: 11/29/2023
Humidity(%): 55.0%

Operator: 01
Distance(m): 6.90





Max , Ave Beam angle of C0 plane 41.40



Luminance Table

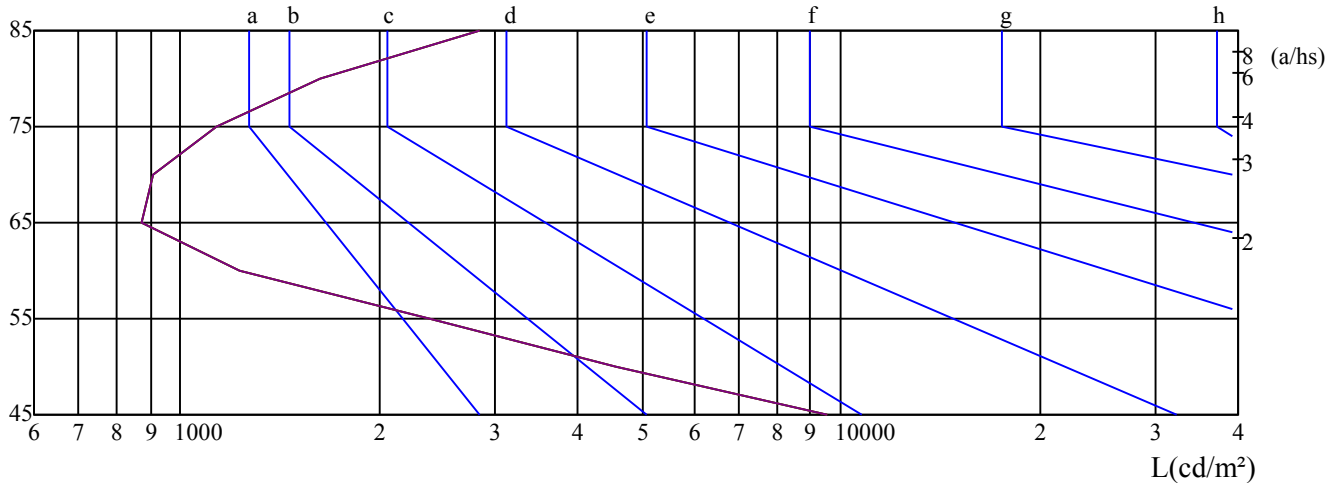
γ	45	50	55	60	65	70	75	80	85
C0	9549	4563	2384	1232	871	909	1133	1631	2844
C45	9549	4563	2384	1232	871	909	1133	1631	2844
C90	9549	4563	2384	1232	871	909	1133	1631	2844

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
871	871	871	1133	1133	1133	2844	2844	2844

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 ———

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	16.24	17.22	16.60	17.53	17.85	18.26	19.24	18.62	19.55	19.86
	3H	16.06	16.93	16.45	17.27	17.61	18.06	18.93	18.45	19.27	19.62
	4H	15.98	16.79	16.38	17.14	17.51	17.98	18.78	18.38	19.13	19.50
	6H	15.94	16.68	16.36	17.05	17.45	17.91	18.65	18.33	19.02	19.42
	8H	15.91	16.61	16.33	16.99	17.40	17.86	18.56	18.28	18.95	19.35
	12H	15.90	16.56	16.32	16.95	17.37	17.82	18.49	18.25	18.88	19.30
4H	2H	15.97	16.78	16.37	17.13	17.50	17.96	18.77	18.37	19.12	19.49
	3H	15.77	16.44	16.20	16.84	17.25	17.74	18.41	18.17	18.81	19.23
	4H	15.74	16.31	16.18	16.74	17.19	17.69	18.27	18.13	18.69	19.14
	6H	15.68	16.19	16.15	16.64	17.10	17.60	18.11	18.07	18.56	19.01
	8H	15.69	16.17	16.18	16.63	17.10	17.58	18.05	18.07	18.51	18.99
	12H	15.75	16.19	16.24	16.64	17.16	17.59	18.03	18.08	18.48	19.00
8H	4H	15.56	16.03	16.05	16.49	16.97	17.50	17.98	17.99	18.43	18.91
	6H	15.54	15.92	16.04	16.40	16.91	17.42	17.81	17.93	18.29	18.80
	8H	15.64	15.96	16.17	16.49	16.98	17.47	17.80	18.01	18.32	18.82
	12H	15.77	16.02	16.31	16.53	17.06	17.53	17.78	18.07	18.29	18.82
12H	4H	15.52	15.95	16.01	16.41	16.93	17.46	17.89	17.95	18.34	18.86
	6H	15.55	15.87	16.08	16.39	16.89	17.42	17.74	17.95	18.27	18.76
	8H	15.63	15.88	16.18	16.40	16.92	17.45	17.70	17.99	18.22	18.74
Variation with the observer position at spacings:											
S = 1.0H		4.3/-7.7					4.3/-7.7				
S = 1.5H		6.8/-8.3					6.8/-8.3				
S = 2.0H		8.6/-7.4					8.6/-7.4				
Standard tables:		BK1					BK1				
Uncorrected UGR		-3.3					-3.3				

依据CIE Publ. 117 计算 UGR, S/H = 0.25



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LumCAT:

Luminaire: no frame flex sm a e tr fa

LampCAT: modulo led tr 9W 2700K irc 90

Ballast type:

Report No:

Voltage(V): 127.0000

Test No:

Current(A): 0.0730

Number of Lamps: 1

Power (W): 8.3800

Lamp flux(lm): 525.0

PF: 0.9300

Length(mm): 55

Width(mm): 55

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 315.33, Efficiency(%): 60.06% , Luminous Efficacy(lm/W): 37.63

Central intensity(cd): 251.940, Maximum intensity(cd): 258.260

Angle of maximum intensity: $C=0.0$ $\gamma=10.0$

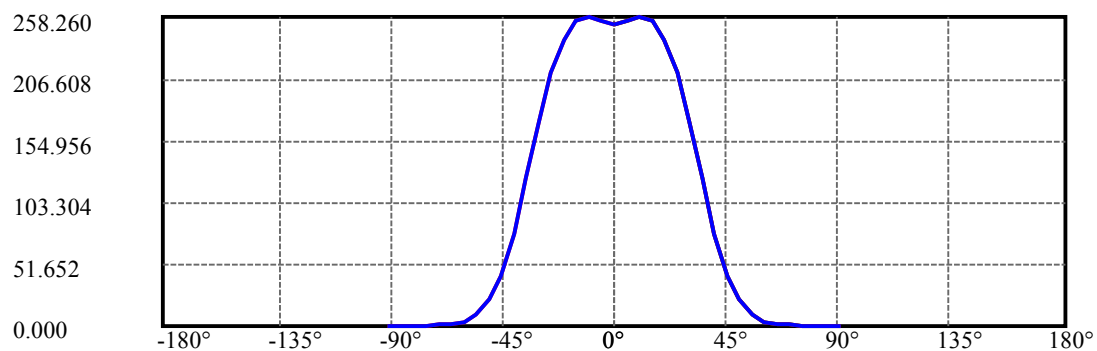
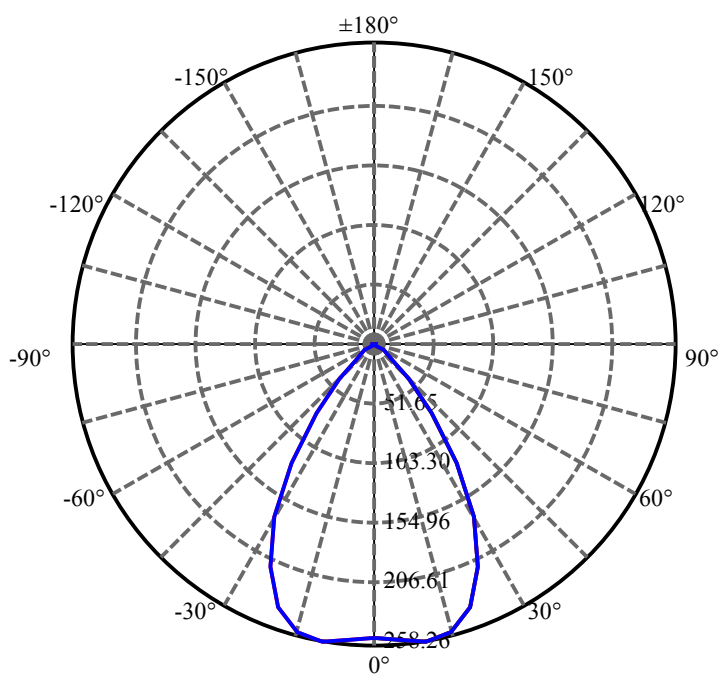
Beam angle of C0 plane : 69.29

Average BeamAngle(IEC 61341): 69.29

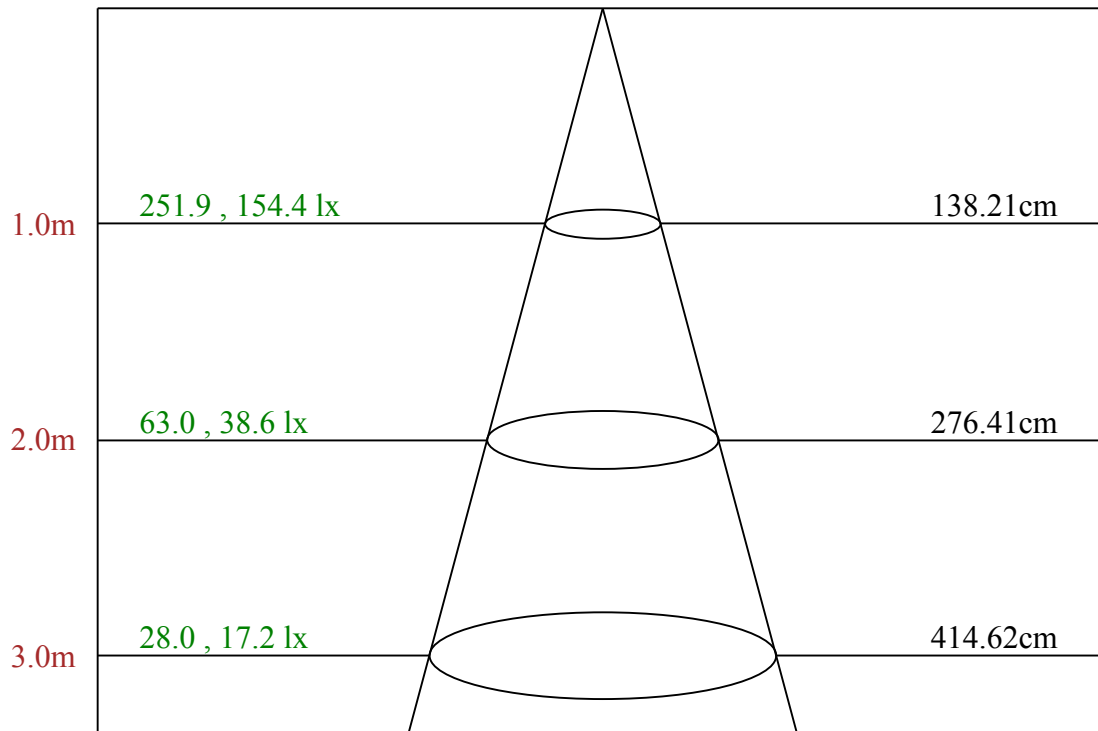
Equipment: equipamento lumini
Temperature(°C): 25.0

Date: 11/29/2023
Humidity(%): 55.0%

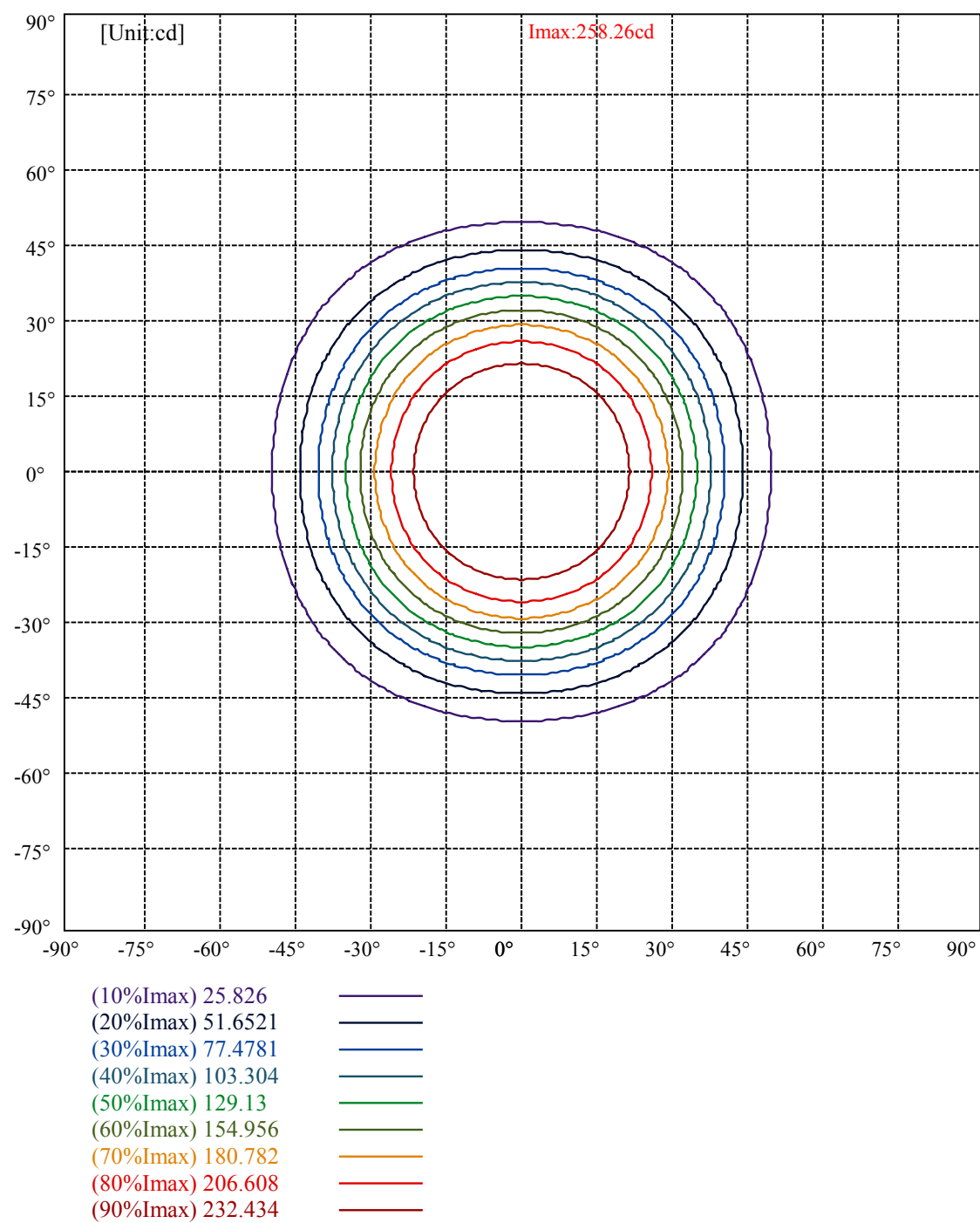
Operator: 01
Distance(m): 6.90



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



Max , Ave Beam angle of C0 plane 69.29



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Luminance Limiting Curve(no luminous side)

Appendix Page: 5 Total:6

Luminance Table

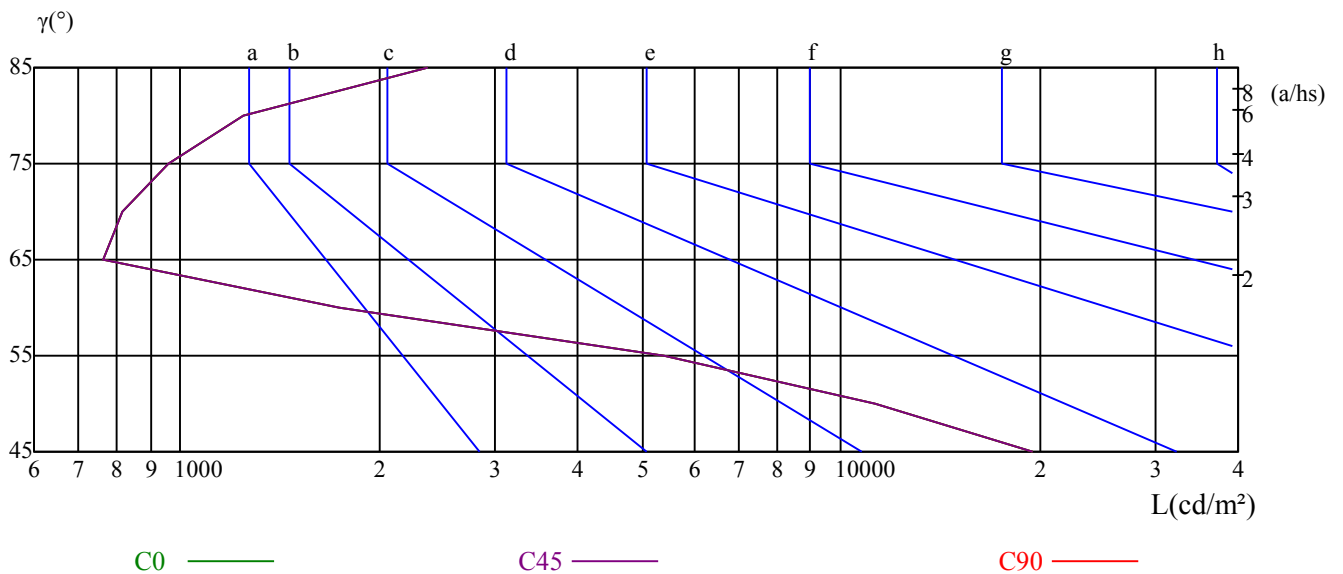
γ	45	50	55	60	65	70	75	80	85
C0	19573	11251	5402	1739	763	817	958	1246	2370
C45	19573	11251	5402	1739	763	817	958	1246	2370
C90	19573	11251	5402	1739	763	817	958	1246	2370

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
763	763	763	958	958	958	2370	2370	2370

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



Equipment: equipamento lumini
Temperature($^{\circ}$ C): 25.0

Date: 11/29/2023
Humidity(%): 55.0%

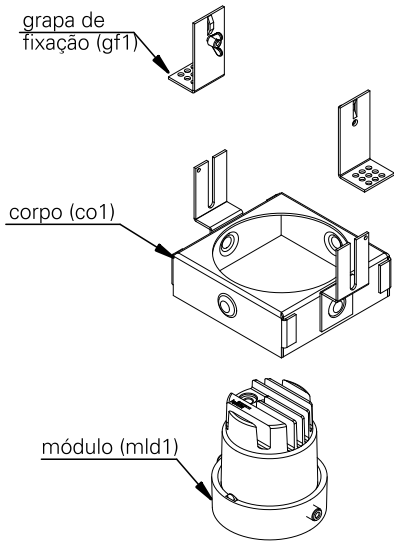
Operator: 01
Distance(m): 6.90

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	20.34	21.42	20.70	21.74	22.05	21.48	22.57	21.85	22.88	23.19
	3H	20.16	21.12	20.55	21.46	21.80	21.30	22.26	21.69	22.60	22.94
	4H	20.07	20.96	20.47	21.31	21.68	21.21	22.09	21.61	22.45	22.81
	6H	20.00	20.81	20.42	21.18	21.58	21.13	21.94	21.55	22.32	22.72
	8H	19.93	20.71	20.35	21.09	21.50	21.07	21.84	21.49	22.22	22.63
	12H	19.88	20.61	20.30	21.01	21.42	21.01	21.74	21.43	22.13	22.55
4H	2H	20.13	21.01	20.53	21.37	21.73	21.24	22.13	21.64	22.48	22.85
	3H	19.91	20.65	20.34	21.04	21.46	21.03	21.76	21.45	22.15	22.57
	4H	19.86	20.49	20.29	20.91	21.36	20.97	21.60	21.40	22.02	22.47
	6H	19.74	20.30	20.21	20.75	21.20	20.84	21.40	21.31	21.85	22.30
	8H	19.69	20.21	20.18	20.67	21.14	20.80	21.31	21.28	21.77	22.24
	12H	19.67	20.15	20.16	20.60	21.11	20.76	21.24	21.25	21.69	22.21
8H	4H	19.67	20.19	20.15	20.64	21.12	20.78	21.29	21.26	21.75	22.22
	6H	19.54	19.97	20.04	20.45	20.96	20.64	21.07	21.14	21.55	22.06
	8H	19.55	19.91	20.08	20.43	20.93	20.64	21.01	21.17	21.53	22.02
	12H	19.53	19.82	20.07	20.34	20.86	20.61	20.90	21.15	21.42	21.94
12H	4H	19.62	20.10	20.11	20.55	21.07	20.73	21.20	21.21	21.66	22.17
	6H	19.53	19.89	20.06	20.41	20.91	20.63	20.99	21.16	21.51	22.01
	8H	19.50	19.79	20.04	20.31	20.83	20.59	20.88	21.13	21.40	21.92
Variation with the observer position at spacings:											
S = 1.0H		3.1/-7.1					3.1/-7.1				
S = 1.5H		5.7/-12.5					5.7/-12.5				
S = 2.0H		7.8/-12.2					7.8/-12.2				
Standard tables:		BK0					BK0				
Uncorrected UGR		0.3					0.3				

依据CIE Publ. 117 计算 UGR, S/H = 0.25

no frame

- no frame flex sm a série 2 e
- no frame flex sm cob a série 2 e
- no frame flex sm cob a série 2 e dual color
- no frame flex sm cob a série 3 e



especificações técnicas

fonte de luz
módulo led integrado (incluso)

índice de proteção
IP20 - luminária para uso interno

peso
no frame flex sm a série 2 e - 0,5 kg
no frame flex sm cob a série 2 e - 0,5 kg
no frame flex sm cob a série 2 e dual color - 0,5 kg
no frame flex sm cob a série 3 e - 0,5 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
chave philips

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.

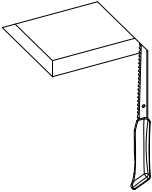
não são permitidas modificações no produto, esse deve atender à finalidade para a qual foi projetado e ser utilizado de acordo com as especificações técnicas.

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

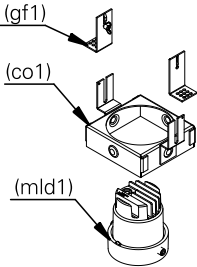
instalação passo a passo



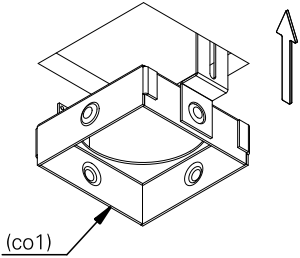
1. faça um nicho no forro conforme a tabela abaixo:
no frame flex sm a e série 2 - nicho = 96x96
no frame flex sm cob a e série 2 - nicho = 96x96
no frame flex sm cob a e série 2 dual color - nicho = 96x96



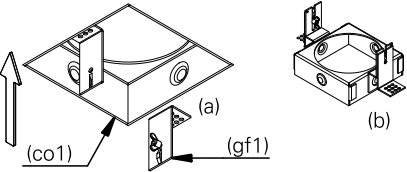
2. desmonte o módulo (mld1) retirando a grapa de fixação (gf1) e o corpo (co1).



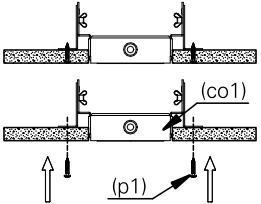
3. encaixe o corpo (co1) no nicho.



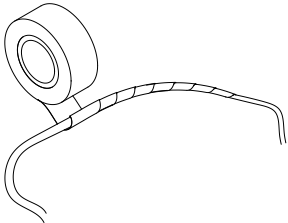
4. passe as grapas de fixação (gf1) pelo centro do corpo (co1) conforme a imagem (a) e encaixe na fresta conforme a imagem (b) faceando o corpo com o gesso.



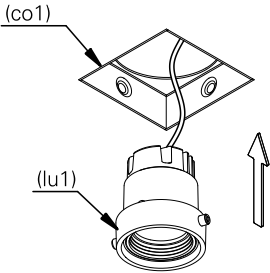
5. utilize os parafusos (p1) para fixar o chassi (ch1) e de o acabamento no forro com gesso, não deixando o parafuso aparente. espere a secagem do gesso para prosseguir a próxima etapa.



6. faça a ligação elétrica. isole os fios separadamente com fita isolante. repita a operação envolvendo o conjunto dos fios, vedando completamente a emenda.



7. encaixe a luminária (lu1) no corpo (co1).



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

