

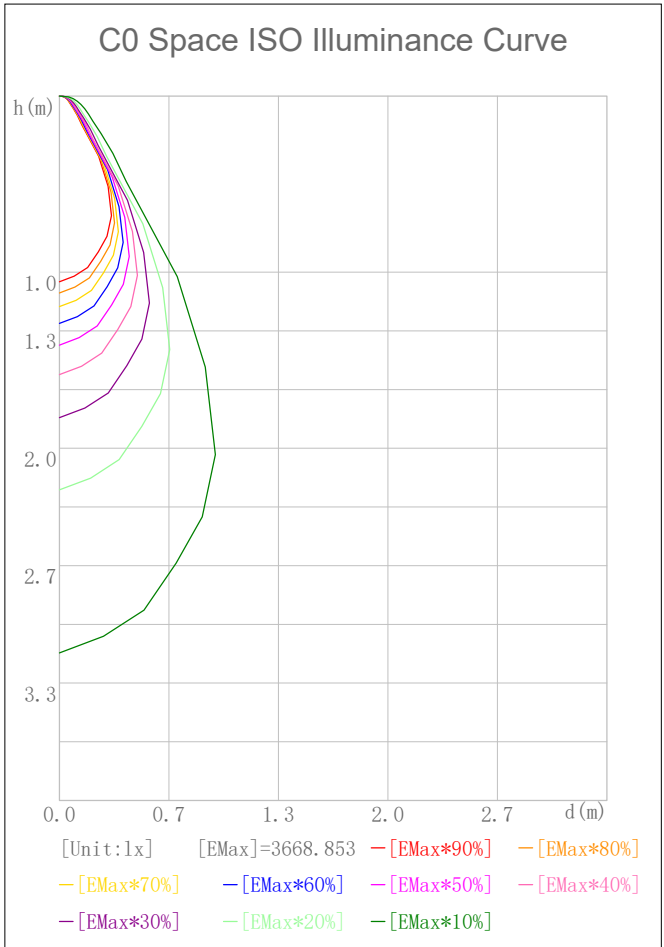
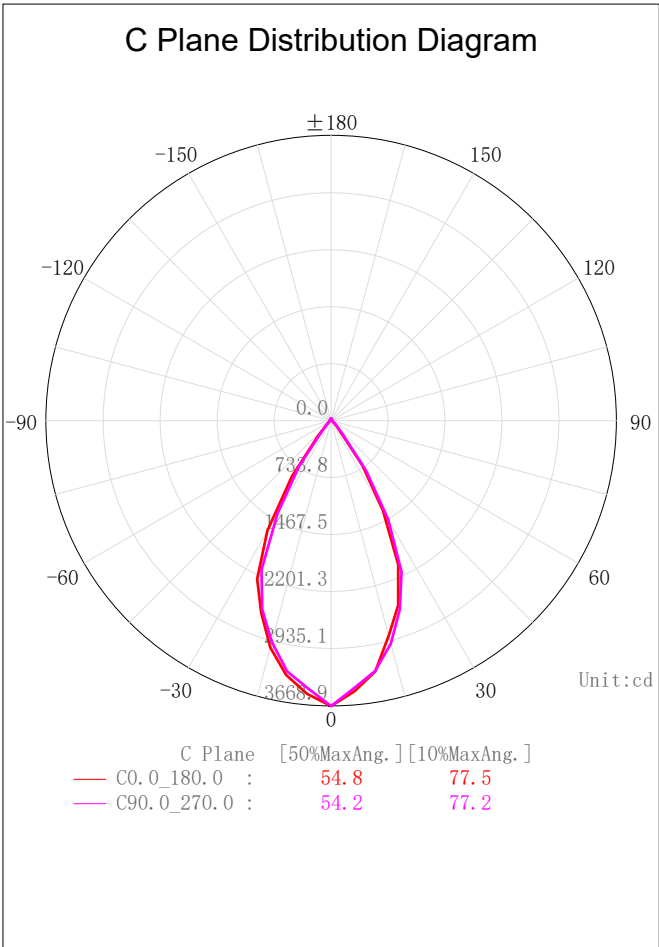
Indoor Luminaire Photometric Data

Description Information

Luminary Name: DL51-35-XX-01 4000K RA90 60D 电镀亮黑		Lum. Catalog:	Test ID: 01
Lamp Name:		Lamp Catalog: LED	Test Date: 2022/08/23
Manufacture: Shenzhen Norming Lighting		Shld. Ang(°):	Test Machine:GON-2000
Test Lab: Quality Department		Frequency (Hz):	Lamp CCT (K): Ra:
Lum. Size (W*L*H):0.110m*0.110m*0.000m		Lum. Area (m2):0.010	Lum. W (kg): 0.000
Test System: C, γ	Test Step: C=90.0 γ=5.0	Temp. (°C): 25	Humidity(%): 50.0

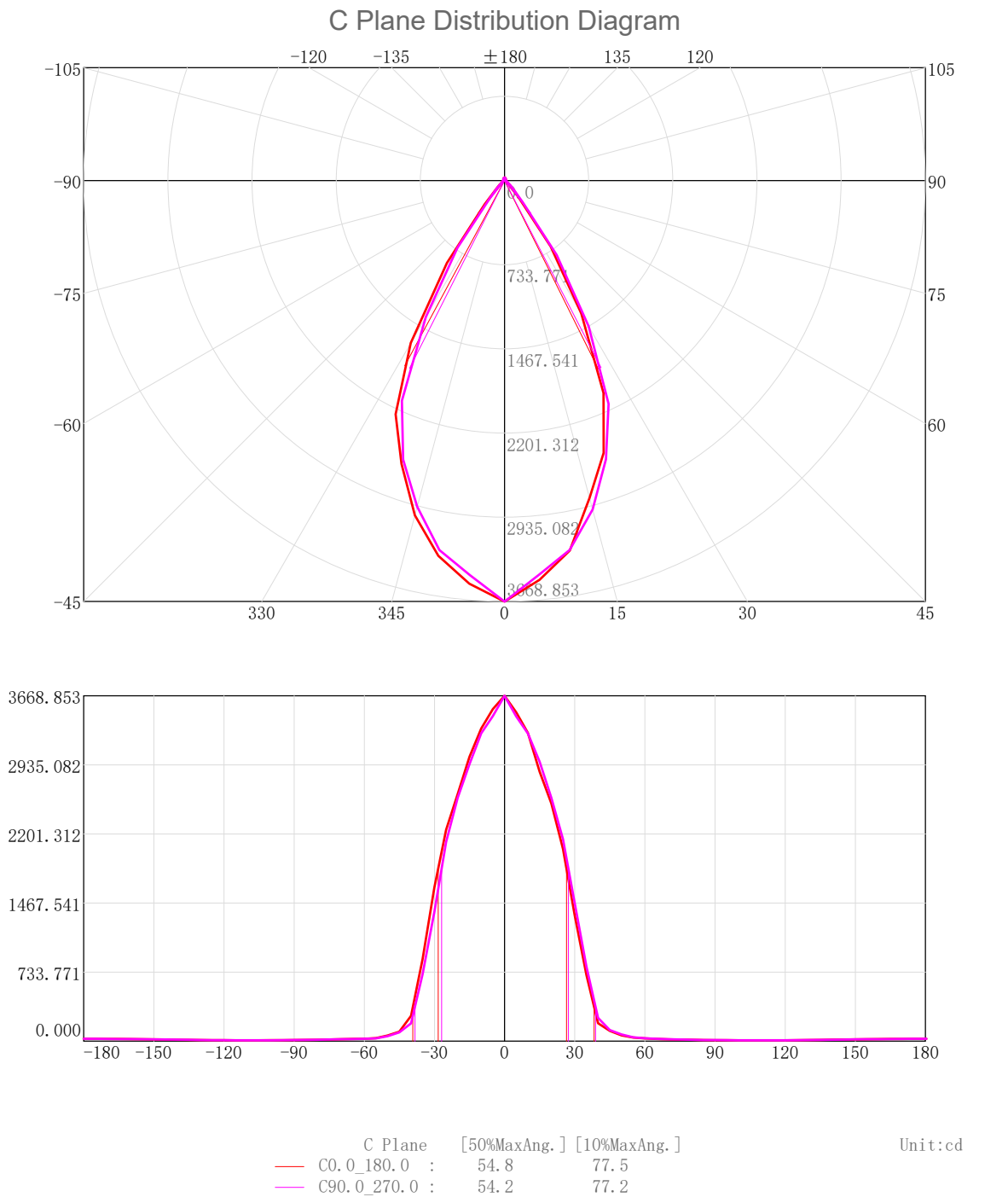
Character Parameter

Lamp Speciality Parameter		Luminaire Speciality Parameter	
Rated Flux(lm): 2873.250	Luminary Flux(lm): 2873.253	Field Angle(10%Imax): 77.5(°)	
Rated Power(W):	Luminary Efficiency: 100.00%	Down Lumens&Percent: 2787.125lm 97.00%	
Rated Voltage(V):	Luminary EER(lm/W): 84.657	Up Lumens&Percent: 86.128lm 3.00%	
Tested Power(W): 33.940	Max. Candela(cd): 3668.853	S/MH: C0_a180=0.842 C90_270=0.840	
Lamps' Inside: 1	Max Cand@Ang. (°): C=0.0 γ=0.0	CIE Type: Semi-Direct	
Tested Electrics (V, A, pf):239.7, 0.147, 0.961	Beam Angle(50%Imax): 54.8(°)	ErP Φ use(90°): 2685.364lm	
Lamp Size (W*L*H):0.110m*0.110m*0.000m	Left=-28.4°, Right=26.5°	IRF(%): 285.311	



2D Plane Light Intensity Distribution Curve

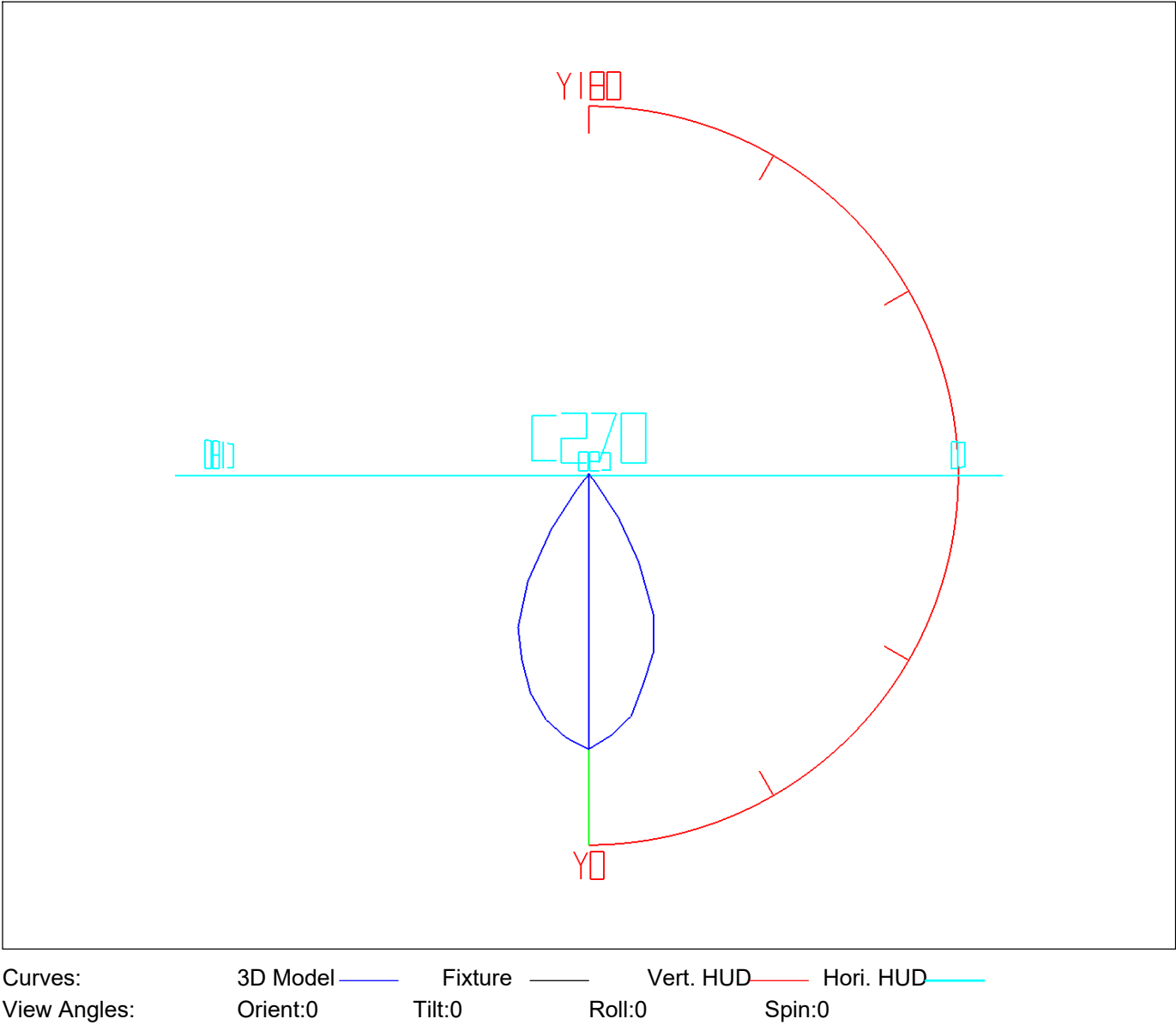
Lum. Name:DL51-35-XX-01 4000K RA90 60D 电镀亮黑	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/23



3D Light Intensity Distribution Modal

Lum. Name:DL51-35-XX-01 4000K RA90 60D 电镀亮黑	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/23

3D Light Intensity Distribution Modal

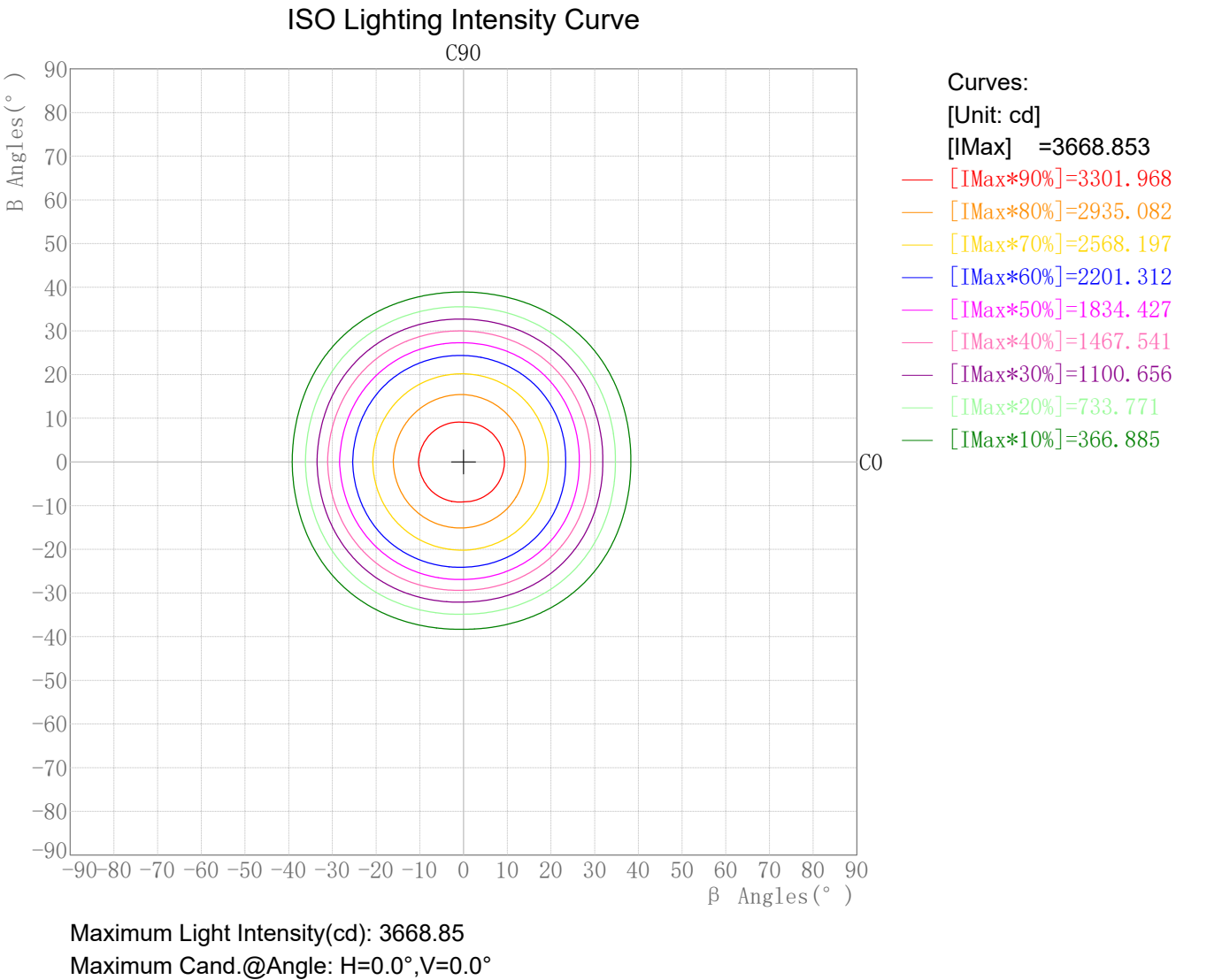


Zonal Flux Tabulation

Zone(γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-5.0	85.46	85.46	2.97	2.97
5.0-10.0	241.95	327.41	8.42	11.40
10.0-15.0	369.65	697.06	12.87	24.26
15.0-20.0	455.66	1152.72	15.86	40.12
20.0-25.0	494.92	1647.64	17.22	57.34
25.0-30.0	454.45	2102.09	15.82	73.16
30.0-35.0	327.49	2429.57	11.40	84.56
35.0-40.0	166.13	2595.71	5.78	90.34
40.0-45.0	61.28	2656.99	2.13	92.47
45.0-50.0	34.04	2691.02	1.18	93.66
50.0-55.0	21.41	2712.43	0.75	94.40
55.0-60.0	15.06	2727.50	0.52	94.93
60.0-65.0	13.05	2740.54	0.45	95.38
65.0-70.0	11.65	2752.19	0.41	95.79
70.0-75.0	10.37	2762.56	0.36	96.15
75.0-80.0	9.18	2771.74	0.32	96.47
80.0-85.0	8.13	2779.87	0.28	96.75
85.0-90.0	7.26	2787.13	0.25	97.00
90.0-95.0	6.57	2793.70	0.23	97.23
95.0-100.0	5.99	2799.69	0.21	97.44
100.0-105.0	5.53	2805.22	0.19	97.63
105.0-110.0	5.22	2810.44	0.18	97.81
110.0-115.0	5.06	2815.50	0.18	97.99
115.0-120.0	5.06	2820.55	0.18	98.17
120.0-125.0	5.19	2825.75	0.18	98.35
125.0-130.0	5.42	2831.17	0.19	98.54
130.0-135.0	5.65	2836.82	0.20	98.73
135.0-140.0	5.82	2842.64	0.20	98.93
140.0-145.0	5.87	2848.51	0.20	99.14
145.0-150.0	5.67	2854.18	0.20	99.34
150.0-155.0	5.26	2859.44	0.18	99.52
155.0-160.0	4.64	2864.08	0.16	99.68
160.0-165.0	3.84	2867.92	0.13	99.81
165.0-170.0	2.90	2870.81	0.10	99.92
170.0-175.0	1.82	2872.63	0.06	99.98
175.0-180.0	0.62	2873.25	0.02	100.00

Rectangle ISO Lighting Intensity Diagram

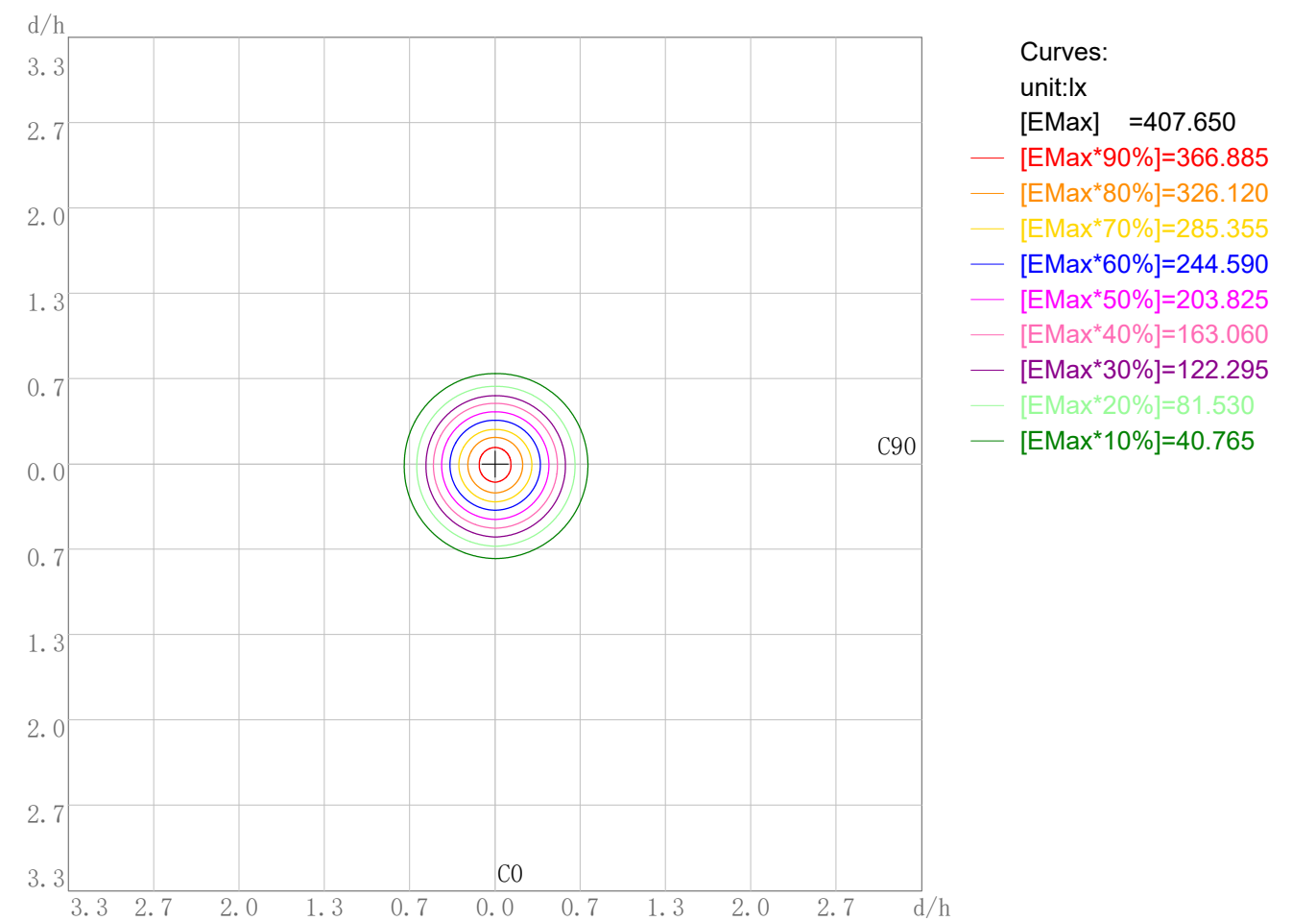
Lum. Name: DL51-35-XX-01 4000K RA90 60D 电镀亮黑	Lum. Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/23



Plane ISO-Illuminance Diagram

Lum. Name: DL51-35-XX-01 4000K RA90 60D 电镀亮黑	Lum. Catalog:	Test ID: 01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/23

Plane ISO-Illuminance Curve

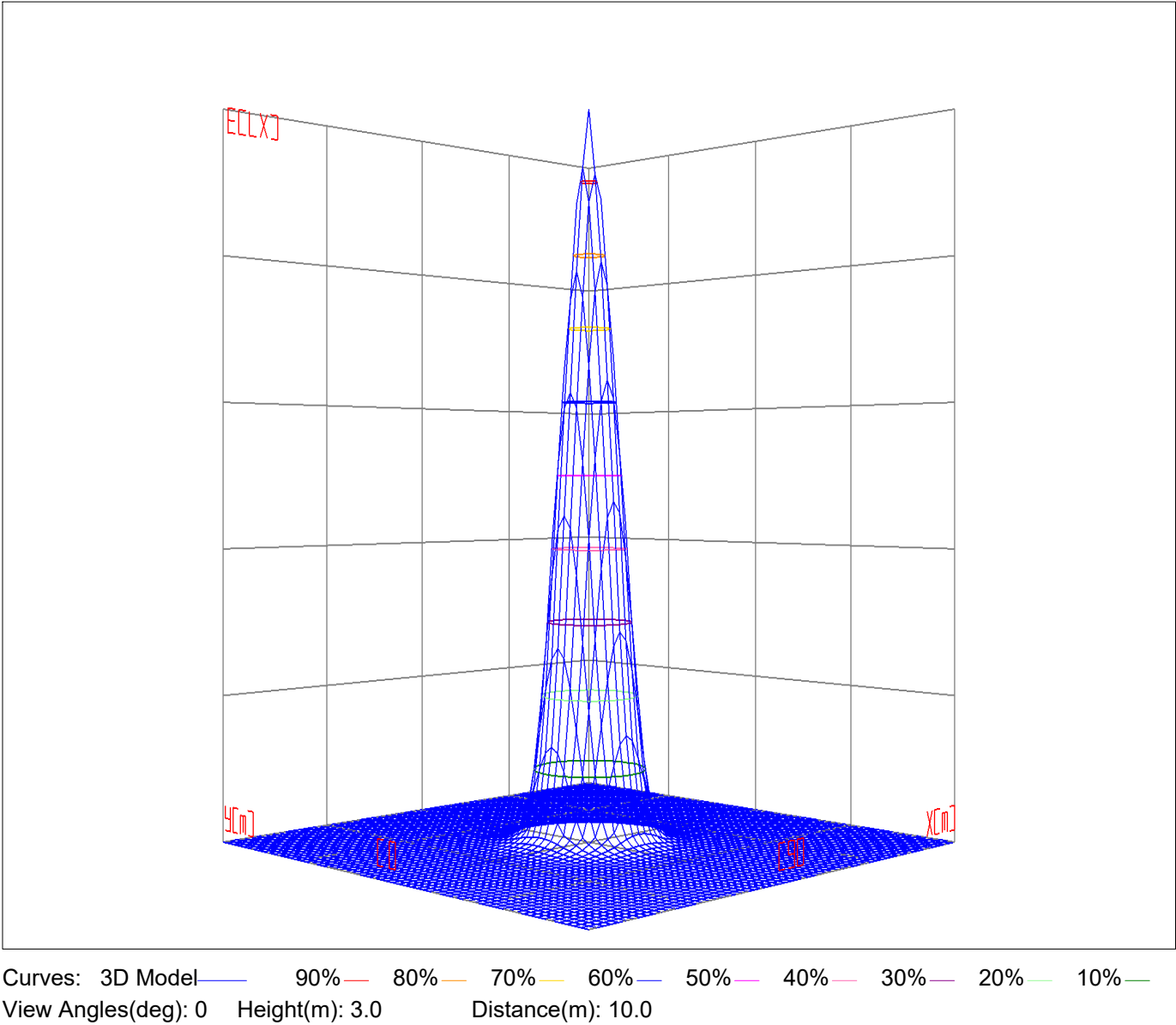


Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 407.65
Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

3D Plane ISO Illuminance Diagram

Lum. Name: DL51-35-XX-01 4000K RA90 60D 电镀亮黑	Lum. Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/23

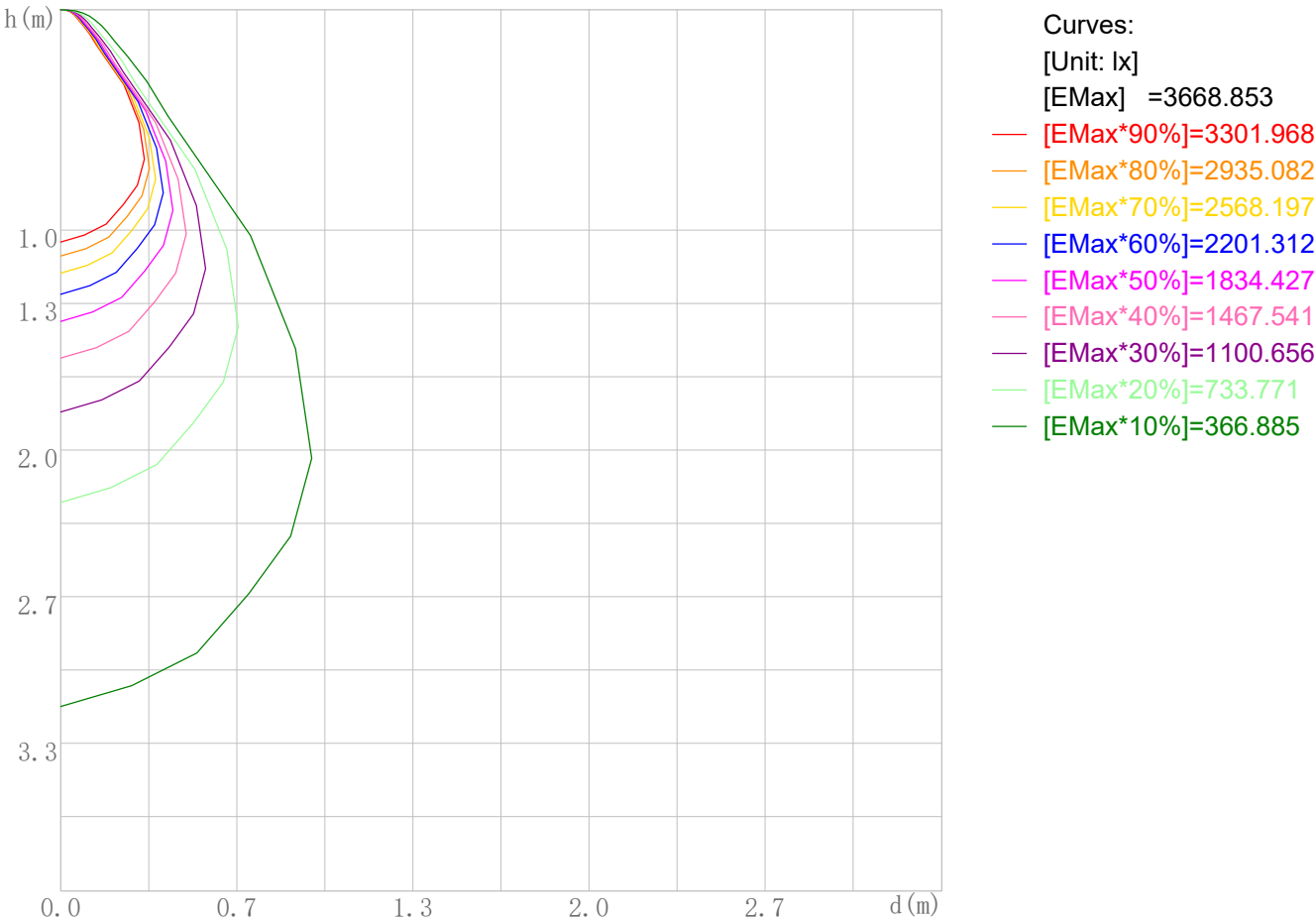
3D Plane Illuminance Modal



Space ISO Illuminance Diagram

Lum. Name: DL51-35-XX-01 4000K RA90 60D 电镀亮黑	Lum. Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/23

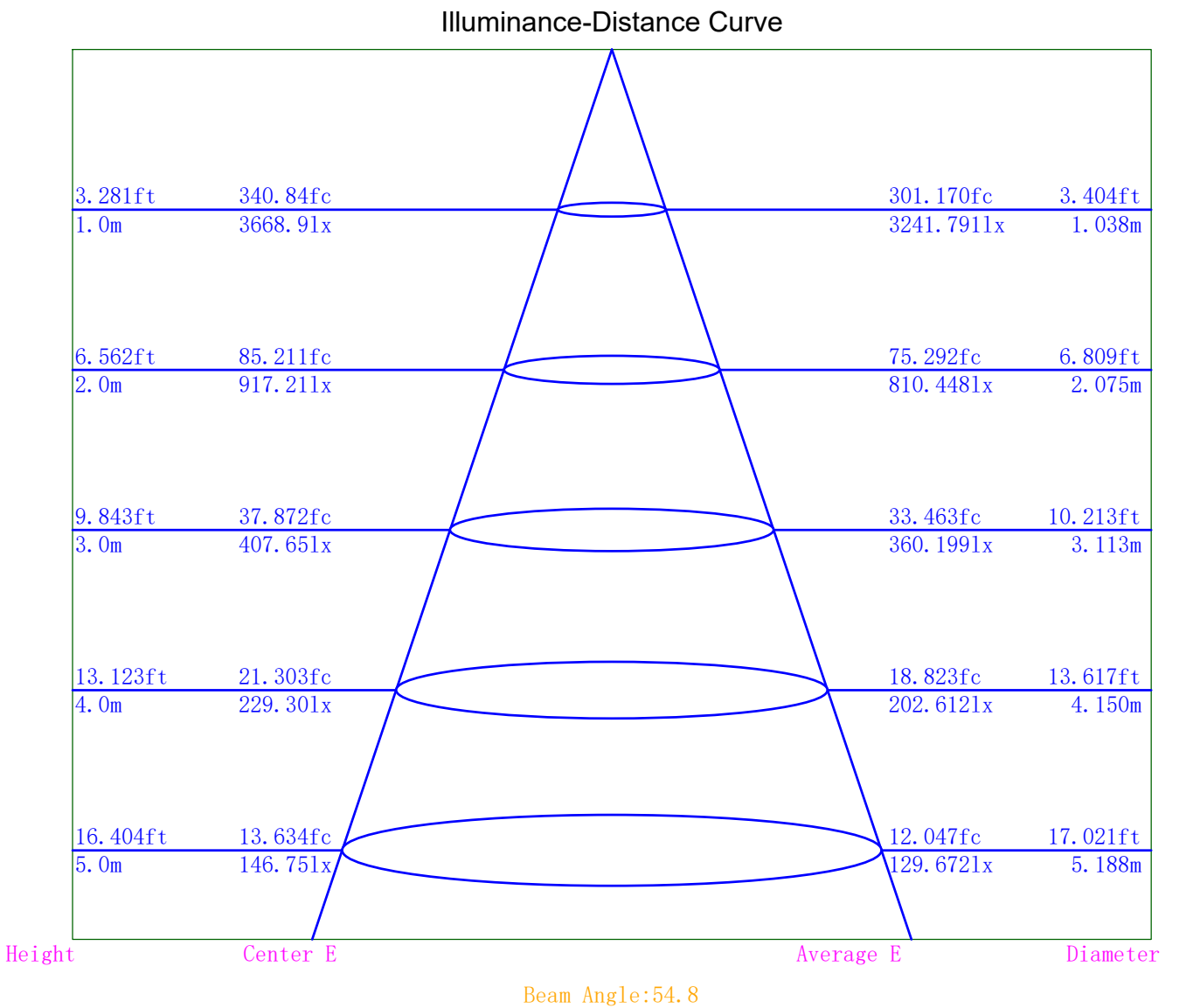
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:3668.85lx,0.0deg
Plane Maximum Lighting Intensity and @Angle:3668.853cd,0deg

Illuminance-Distance Diagram

Lum. Name:DL51-35-XX-01 4000K RA90 60D 电镀亮黑	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/23



Indoor Luminance Limiting Curves

Lum. Name:DL51-35-XX-01 4000K RA90 60D 电镀亮黑	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/23

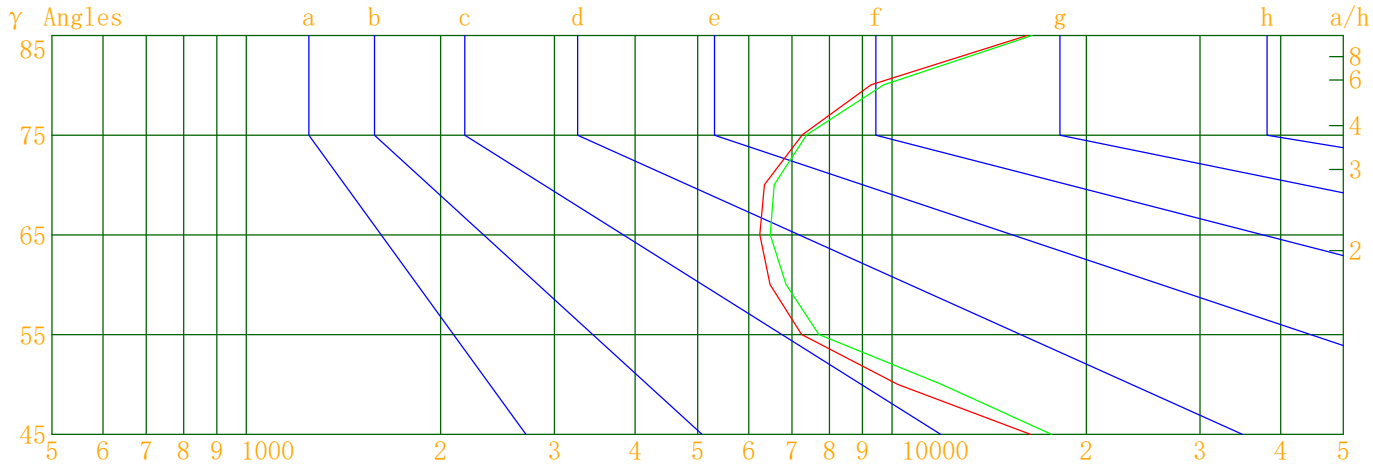
Glare Grade Table

GI	Quality	Using Illuminance							
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	a				2000	1000	500	<=300
			b	c	d	e	f	g	h

Luminance Table

Gama(deg)	45	50	55	60	65	70	75	80	85
C0	16385	10208	7246	6475	6241	6346	7264	9281	16189
C90	17660	11940	7707	6853	6478	6570	7377	9707	16485

Luminance Limiting Curve



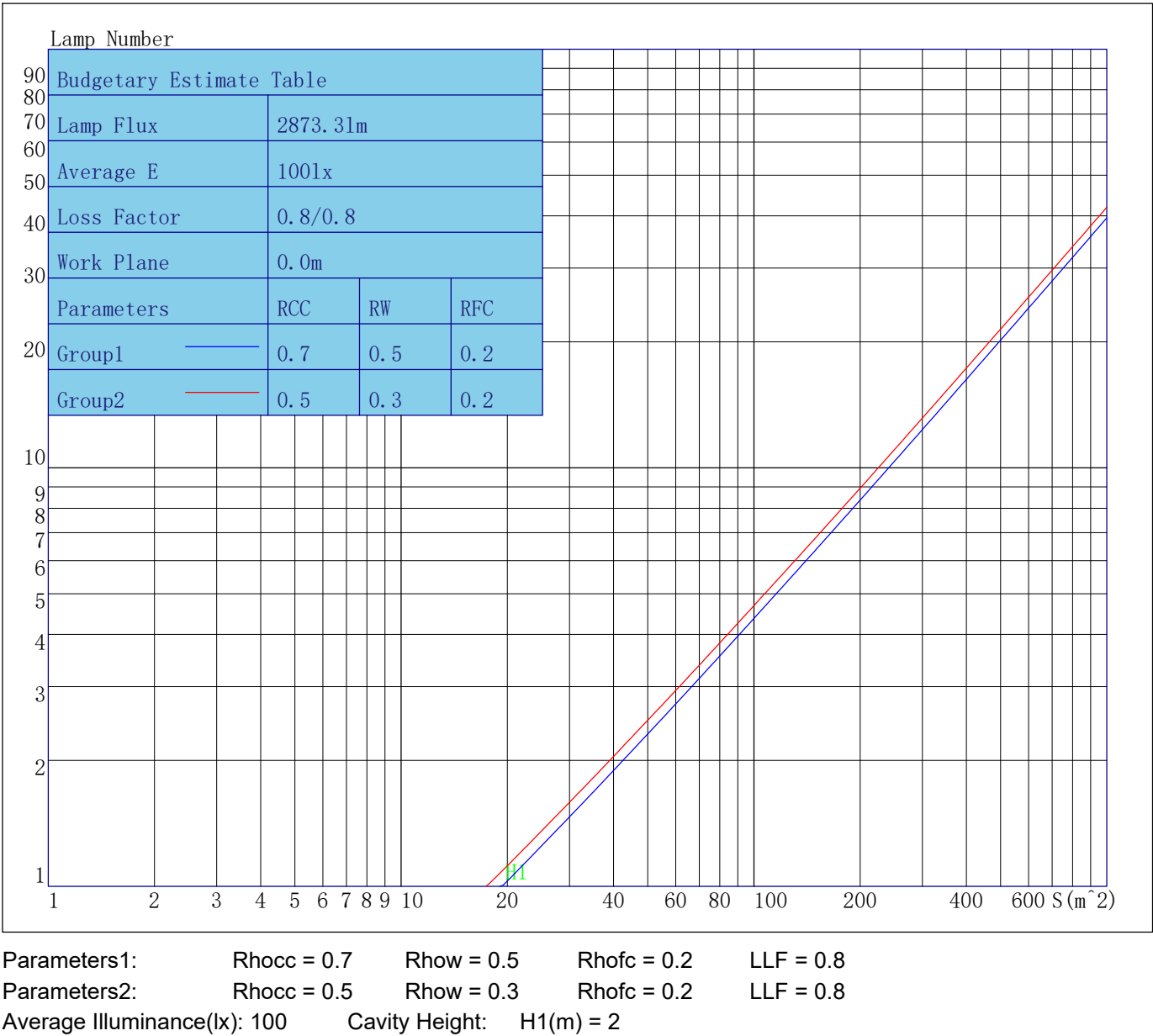
Luminous Size:Length(m)=-0.110Width(m)=-0.110Height(m)=0.000Area(m^2)=0.009503

Luminous Type:Without Luminous Side

Luminous Curves:C0-C180 Color: C90-C270 Color:

Indoor Budgetary Estimate Table

Lum. Name:DL51-35-XX-01 4000K RA90 60D 电镀亮黑	Lum. Catalog:	Test ID:01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/23



Indoor Coefficient of Utilization Table

Lum. Name:DL51-35-XX-01 4000K RA90 60D 电镀亮黑	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/23

Coefficients of Utilization - Zonal Cavity Method																		
Coef.	Effective Floor Cavity Reflectance RFC=0.20																	
RhoCC (%)	80				70				50			30			10			0
RhoW (%)	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	Coefficient of Utilization(%)																	
0	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	97
1	113	110	107	105	110	107	105	103	103	101	99	98	97	96	94	93	92	90
2	107	102	98	94	104	100	96	93	96	93	91	93	90	88	90	88	86	84
3	102	95	90	86	99	93	89	85	90	87	83	88	84	82	85	82	80	78
4	97	89	83	79	94	88	83	79	85	81	77	83	79	76	81	78	75	73
5	92	83	78	73	90	82	77	73	80	76	72	78	74	71	76	73	70	69
6	87	79	73	68	86	78	72	68	76	71	67	74	70	67	73	69	66	64
7	83	74	68	64	82	73	68	64	72	67	63	70	66	63	69	65	62	61
8	79	70	64	60	78	69	64	60	68	63	59	67	62	59	65	61	58	57
9	76	66	60	56	74	66	60	56	64	59	56	63	59	56	62	58	55	54
10	72	63	57	53	71	62	57	53	61	56	53	60	56	53	59	55	52	51

Unified Glare Rating Table

Lum. Name:DL51-35-XX-01 4000K RA90 60D 电镀亮黑	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/23

Unified Glare Rating Table

Ceiling RCC	0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30
Wall RW	0.50	0.30	0.50	0.30	0.30	0.50	0.30	0.50	0.30	0.30
Floor RFC	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Room Size	Vewed crosswise					Vewed endwise				
X=2H Y=2H	18.6	19.6	19.1	19.9	20.3	19.3	20.3	19.8	20.6	21.0
	18.7	19.5	19.1	19.9	20.3	19.3	20.1	19.8	20.5	21.0
	18.8	19.5	19.2	19.9	20.4	19.4	20.1	19.9	20.6	21.0
	18.9	19.6	19.4	20.0	20.5	19.5	20.2	20.0	20.6	21.1
	19.0	19.7	19.5	20.1	20.6	19.6	20.3	20.1	20.7	21.2
	19.2	19.8	19.7	20.3	20.8	19.8	20.4	20.3	20.9	21.4
X=4H Y=2H	18.4	19.2	18.9	19.6	20.1	19.1	19.9	19.6	20.3	20.8
	18.6	19.2	19.0	19.7	20.1	19.2	19.8	19.7	20.3	20.8
	18.7	19.3	19.2	19.8	20.3	19.3	19.9	19.8	20.4	20.9
	19.1	19.5	19.6	20.0	20.6	19.6	20.1	20.1	20.6	21.1
	19.3	19.7	19.8	20.2	20.8	19.8	20.2	20.3	20.8	21.3
	19.6	20.0	20.2	20.6	21.1	20.1	20.5	20.7	21.0	21.6
X=8H Y=4H	18.7	19.2	19.3	19.7	20.2	19.3	19.7	19.8	20.2	20.8
	19.2	19.6	19.8	20.1	20.7	19.7	20.1	20.3	20.6	21.2
	19.6	19.9	20.2	20.5	21.0	20.1	20.4	20.7	20.9	21.5
	20.2	20.4	20.7	21.0	21.6	20.6	20.8	21.2	21.4	22.0
X=12H Y=4H	18.7	19.1	19.3	19.6	20.2	19.3	19.7	19.8	20.2	20.7
	19.3	19.6	19.9	20.1	20.7	19.8	20.1	20.4	20.6	21.2
	19.7	20.0	20.3	20.5	21.2	20.2	20.4	20.8	21.0	21.7
Variations with the objverver position at spacings										
S=1.0H	0.1/-0.1					0.1/-0.1				
S=1.5H	0.2/-0.2					0.2/-0.2				
S=2.0H	0.1/-0.2					0.1/-0.2				
Reduced UGR Table:										
Nordic Standard Table:	BK0					BK0				
Correction Value	1.5					1.3				

o the CIE Pub.117,data has been corrected,refers to the lamp’s lumens 8.2flm.

Candela Tabulation

V/H	C0.0	C90.0	C180.0	C270.0
γ 0.0	3668.85	3668.85	3668.85	3668.85
γ 5.0	3492.60	3447.96	3526.65	3452.68
γ 10.0	3273.93	3268.61	3320.85	3270.00
γ 15.0	2862.51	2967.91	3020.16	2942.27
γ 20.0	2525.29	2584.00	2626.70	2586.84
γ 25.0	2042.86	2146.47	2246.01	2117.06
γ 30.0	1337.38	1465.73	1634.32	1374.45
γ 35.0	701.43	791.63	875.71	714.99
γ 40.0	191.18	248.34	269.94	189.77
γ 45.0	110.11	118.68	101.97	93.88
γ 50.0	62.36	72.93	60.71	53.13
γ 55.0	39.50	42.01	32.70	30.50
γ 60.0	30.77	32.56	26.68	25.93
γ 65.0	25.07	26.02	24.08	23.57
γ 70.0	20.63	21.36	22.04	21.24
γ 75.0	17.87	18.14	18.81	18.55
γ 80.0	15.32	16.02	16.39	16.16
γ 85.0	13.41	13.65	14.72	14.07
γ 90.0	12.17	12.33	13.04	12.61
γ 95.0	11.14	11.48	11.88	11.35
γ 100.0	10.06	10.49	11.09	10.73
γ 105.0	9.84	10.07	10.26	10.16
γ 110.0	9.71	9.65	9.96	10.23
γ 115.0	9.88	9.73	10.03	10.69
γ 120.0	10.41	10.34	10.94	11.18
γ 125.0	11.61	11.39	11.73	12.26
γ 130.0	13.33	12.73	13.19	13.45
γ 135.0	14.73	14.38	14.84	15.26
γ 140.0	16.88	16.29	16.62	16.84
γ 145.0	18.73	17.90	18.75	18.63
γ 150.0	20.17	19.71	19.89	20.33
γ 155.0	21.85	21.56	21.39	21.39
γ 160.0	22.91	22.23	22.59	22.92
γ 165.0	24.18	23.43	24.12	23.88
γ 170.0	25.33	24.80	24.95	24.63
γ 175.0	26.11	25.72	25.98	25.63
γ 180.0	26.24	26.24	26.24	26.24