

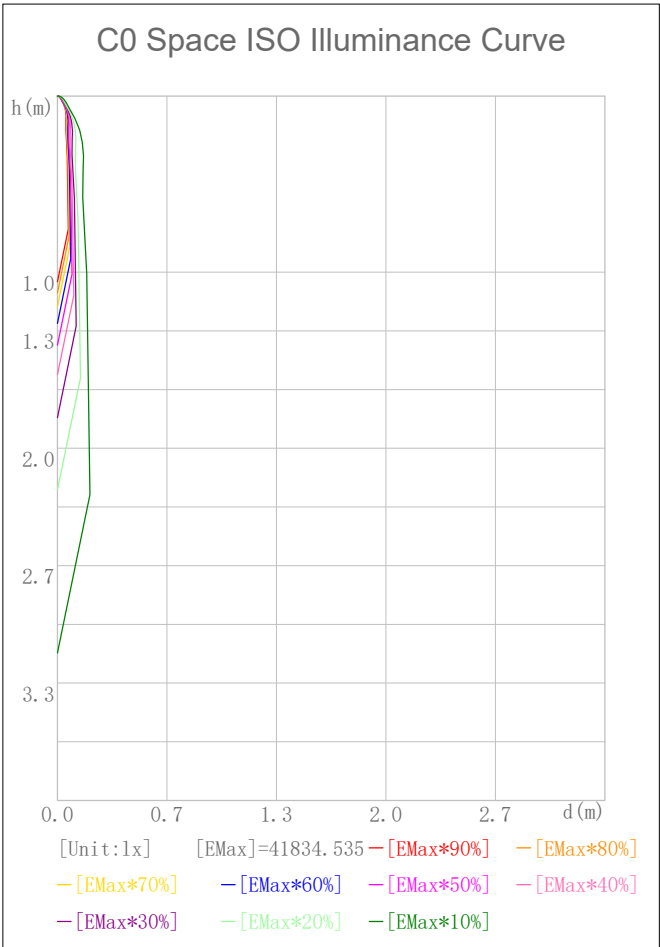
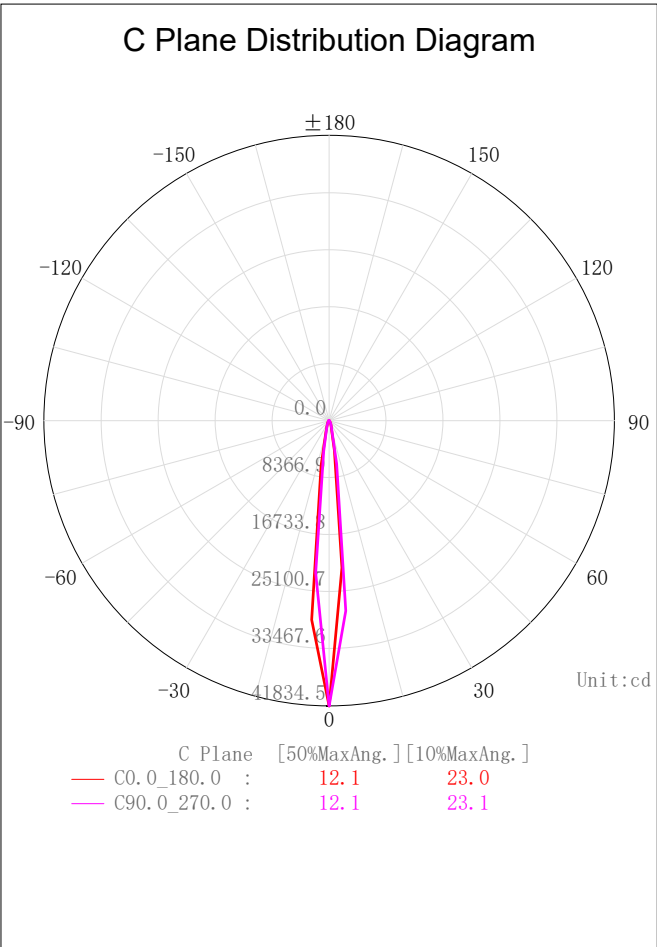
Indoor Luminaire Photometric Data

Description Information

Luminary Name: DL51-35-XX-01 4000K RA90 15D 黑色	Lum. Catalog:	Test ID: 01
Lamp Name:	Lamp Catalog: LED	Test Date: 2022/08/11
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): 0.012	Lum. W (kg): 0.000
Test System: C, γ	Test Step: C=90.0 γ=5.0	Temp. (°C): 25
		Humidity (%): 50.0

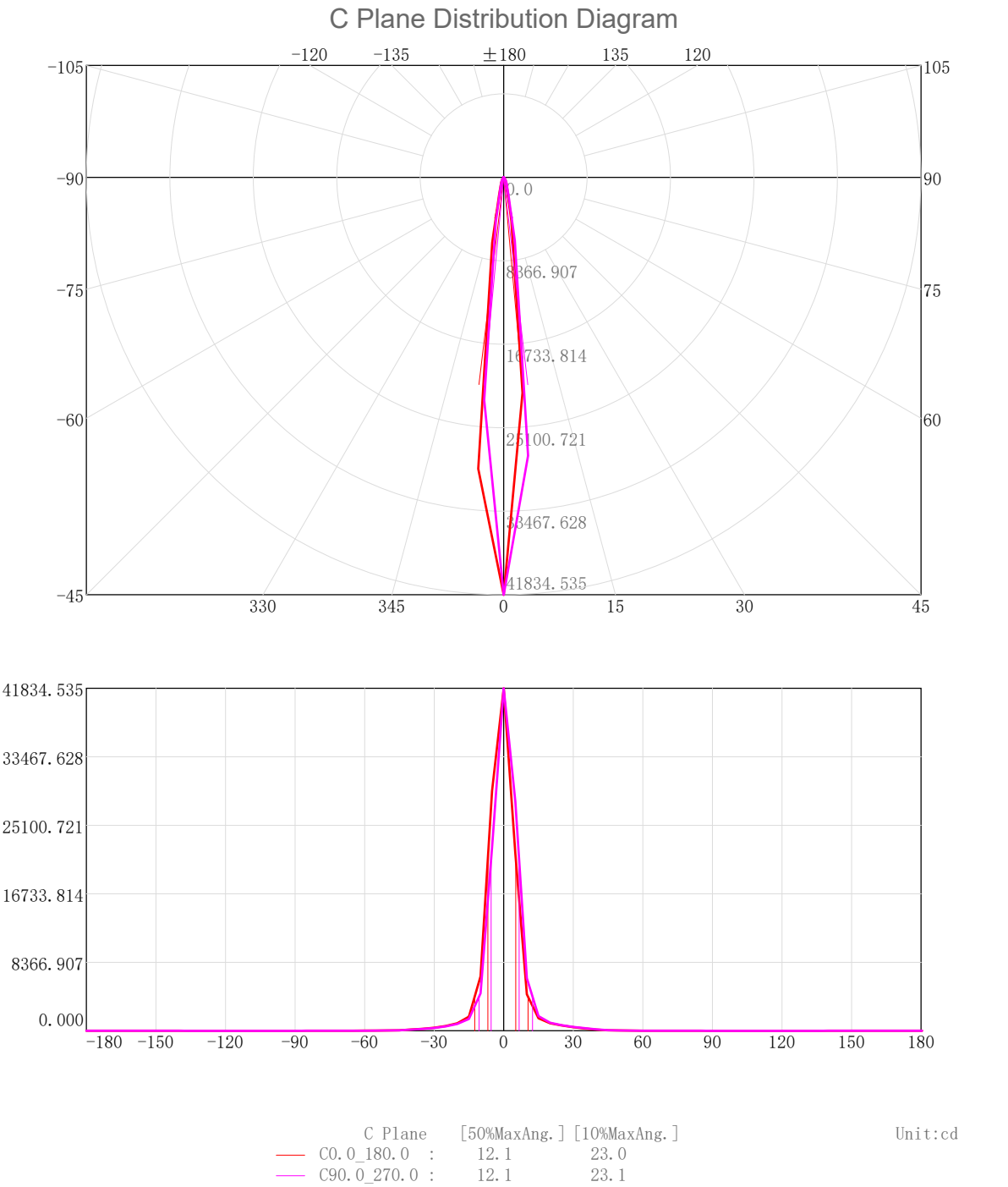
Character Parameter

Lamp Speciality Parameter	Luminaire Speciality Parameter	
Rated Flux(lm): 3200.640	Luminary Flux(lm): 3200.644	Field Angle(10%Imax): 23.0(°)
Rated Power(W):	Luminary Efficiency: 100.00%	Down Lumens&Percent: 3146.597lm 98.31%
Rated Voltage(V):	Luminary EER(lm/W): 95.031	Up Lumens&Percent: 54.047lm 1.69%
Tested Power(W): 33.680	Max. Candela(cd): 41834.535	S/MH: C0_a180=0.209 C90_270=0.209
Lamps' Inside: 1	Max Cand@Ang. (°): C=0.0 γ=0.0	CIE Type: Semi-Direct
Tested Electrics (V, A, pf): 239.6, 0.146, 0.960	Beam Angle(50%Imax): 12.1(°)	ErP Φ use(90°): 3152.014lm
Lamp Size (W*L*H): 0.110m*0.110m*0.000m	Left=-6.9°, Right=5.2°	IRF (%): 2777.174



2D Plane Light Intensity Distribution Curve

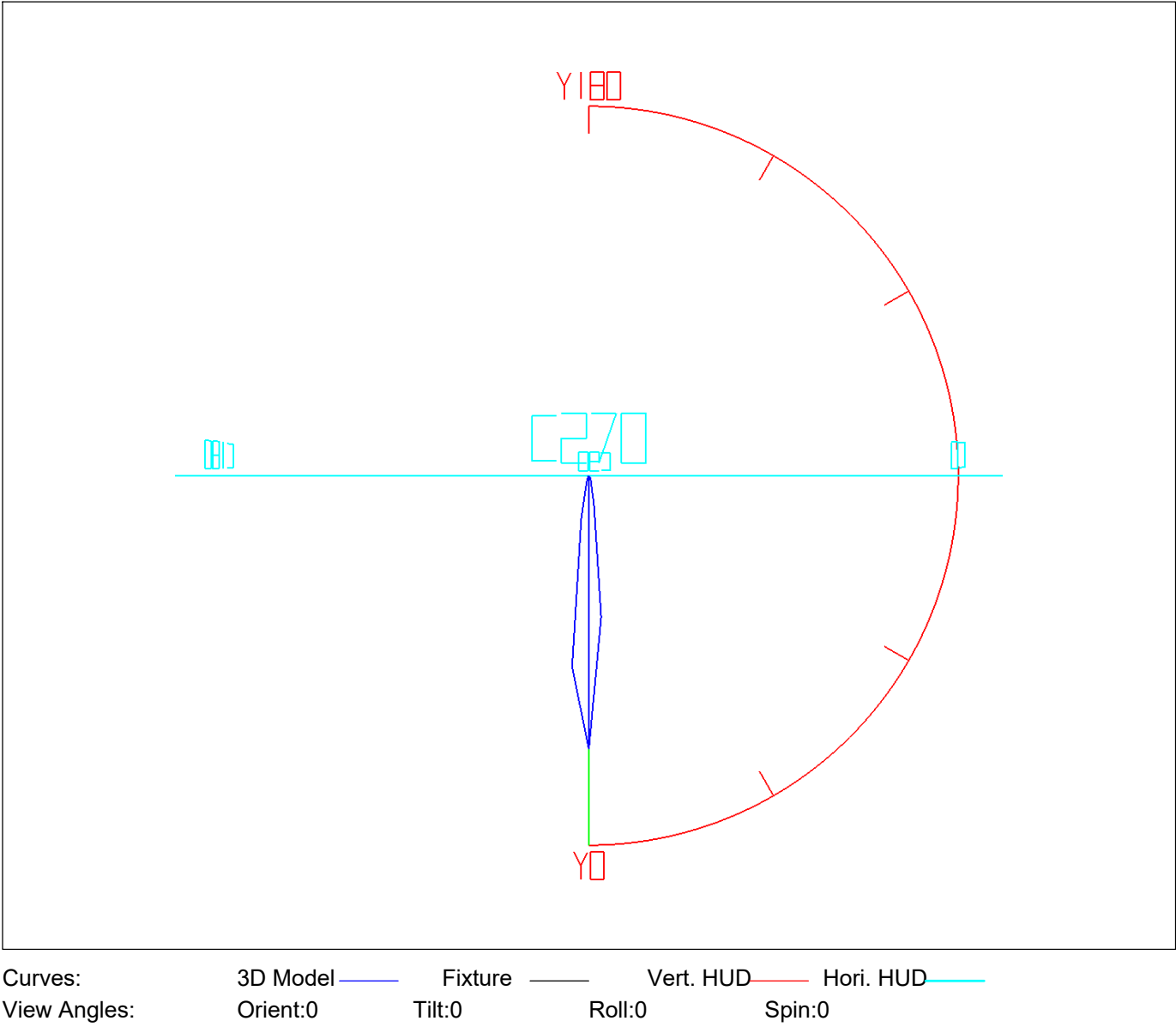
Lum. Name:DL51-35-XX-01 4000K RA90 15D 黑色	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/11



3D Light Intensity Distribution Modal

Lum. Name:DL51-35-XX-01 4000K RA90 15D 黑色	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/11

3D Light Intensity Distribution Modal

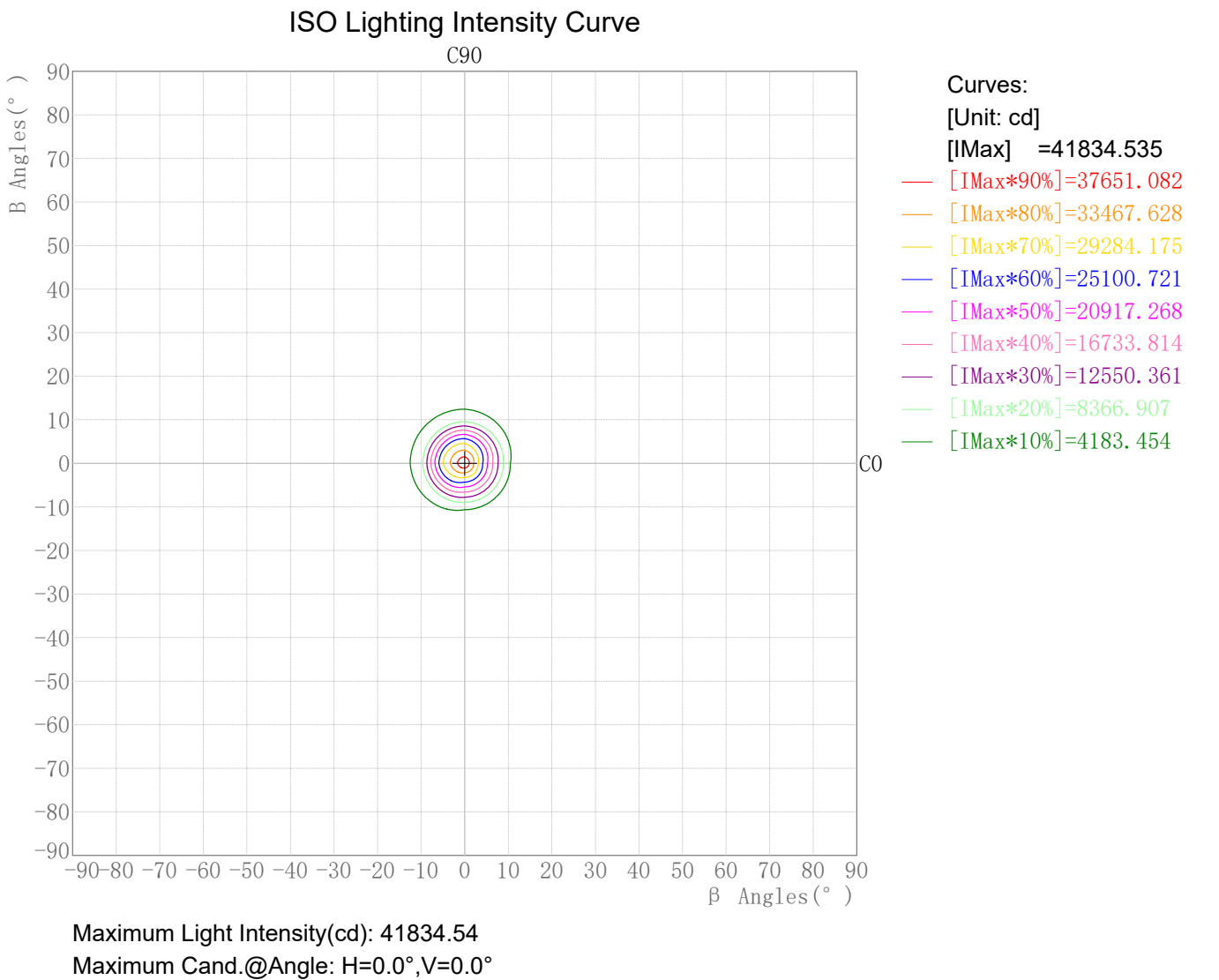


Zonal Flux Tabulation

Zone(γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-5.0	803.10	803.10	25.09	25.09
5.0-10.0	1104.76	1907.86	34.52	59.61
10.0-15.0	425.46	2333.33	13.29	72.90
15.0-20.0	210.43	2543.76	6.57	79.48
20.0-25.0	161.84	2705.60	5.06	84.53
25.0-30.0	130.82	2836.42	4.09	88.62
30.0-35.0	100.45	2936.87	3.14	91.76
35.0-40.0	72.11	3008.98	2.25	94.01
40.0-45.0	42.29	3051.28	1.32	95.33
45.0-50.0	23.15	3074.42	0.72	96.06
50.0-55.0	16.81	3091.23	0.53	96.58
55.0-60.0	12.77	3104.00	0.40	96.98
60.0-65.0	10.46	3114.46	0.33	97.31
65.0-70.0	8.75	3123.20	0.27	97.58
70.0-75.0	7.30	3130.50	0.23	97.81
75.0-80.0	6.13	3136.64	0.19	98.00
80.0-85.0	5.33	3141.97	0.17	98.17
85.0-90.0	4.63	3146.60	0.14	98.31
90.0-95.0	3.73	3150.33	0.12	98.43
95.0-100.0	2.95	3153.28	0.09	98.52
100.0-105.0	2.56	3155.84	0.08	98.60
105.0-110.0	2.43	3158.27	0.08	98.68
110.0-115.0	2.28	3160.54	0.07	98.75
115.0-120.0	2.11	3162.65	0.07	98.81
120.0-125.0	2.10	3164.75	0.07	98.88
125.0-130.0	2.23	3166.99	0.07	98.95
130.0-135.0	2.53	3169.51	0.08	99.03
135.0-140.0	3.30	3172.82	0.10	99.13
140.0-145.0	4.53	3177.35	0.14	99.27
145.0-150.0	5.36	3182.71	0.17	99.44
150.0-155.0	5.26	3187.97	0.16	99.60
155.0-160.0	4.52	3192.49	0.14	99.75
160.0-165.0	3.59	3196.08	0.11	99.86
165.0-170.0	2.62	3198.70	0.08	99.94
170.0-175.0	1.50	3200.20	0.05	99.99
175.0-180.0	0.44	3200.64	0.01	100.00

Rectangle ISO Lighting Intensity Diagram

Lum. Name:DL51-35-XX-01 4000K RA90 15D 黑色	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/11

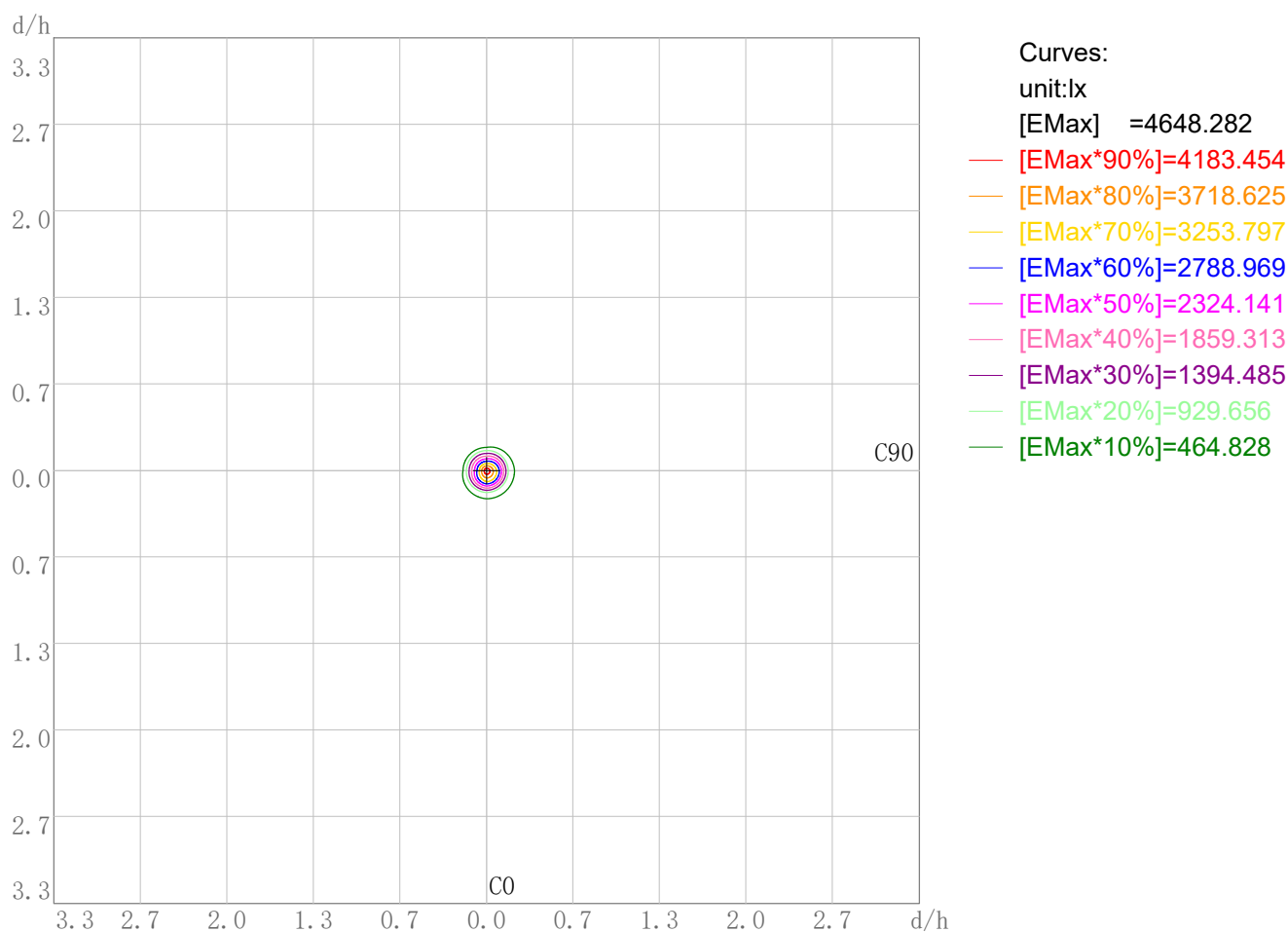


Photometric Filename:DL51-35-XX-01 4000K RA90 15D 黑色.IES

Plane ISO-Illuminance Diagram

Lum. Name: DL51-35-XX-01 4000K RA90 15D 黑色	Lum. Catalog:	Test ID: 01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/11

Plane ISO-Illuminance Curve

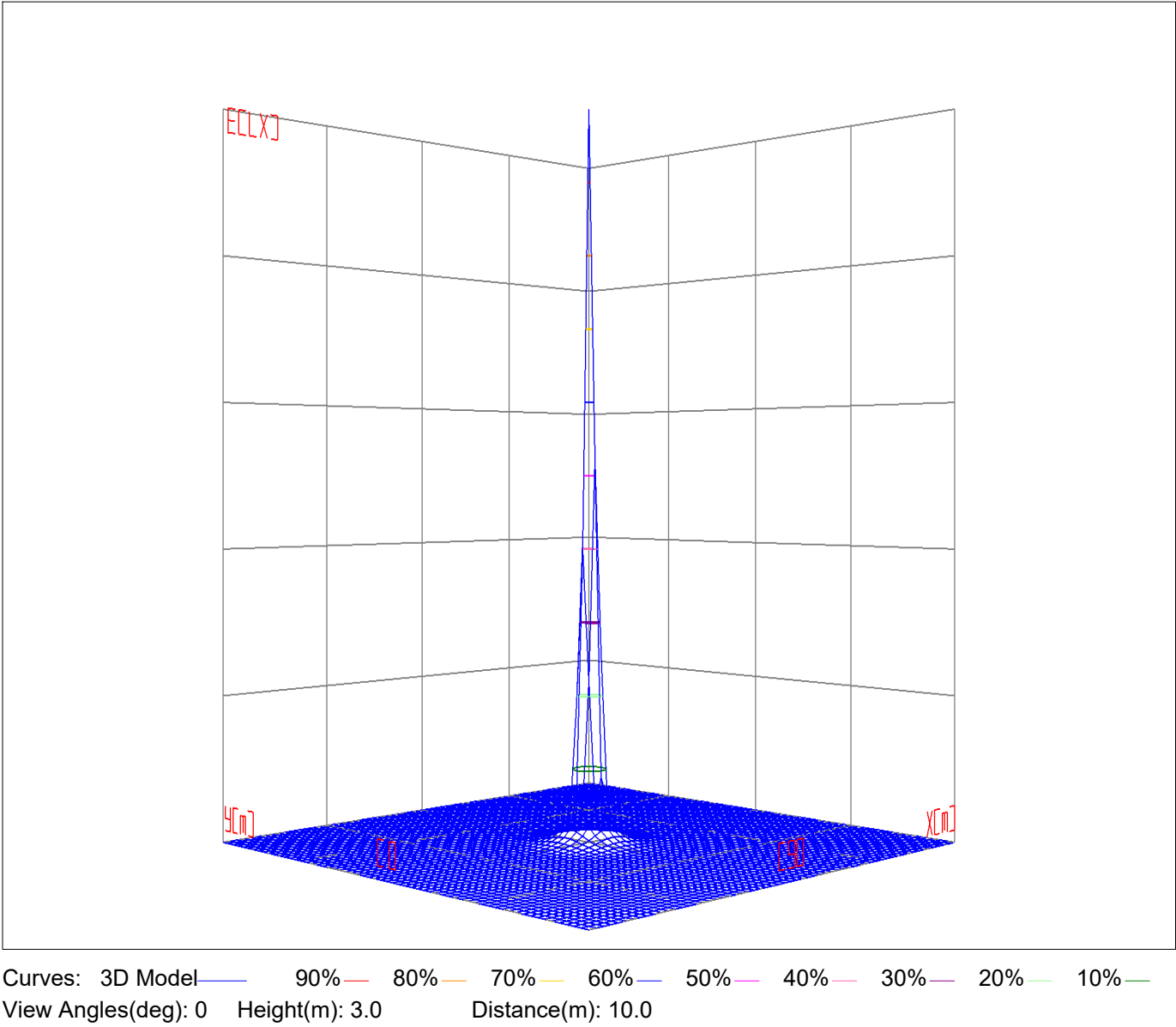


Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 4648.28
Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

3D Plane ISO Illuminance Diagram

Lum. Name: DL51-35-XX-01 4000K RA90 15D 黑色	Lum. Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/11

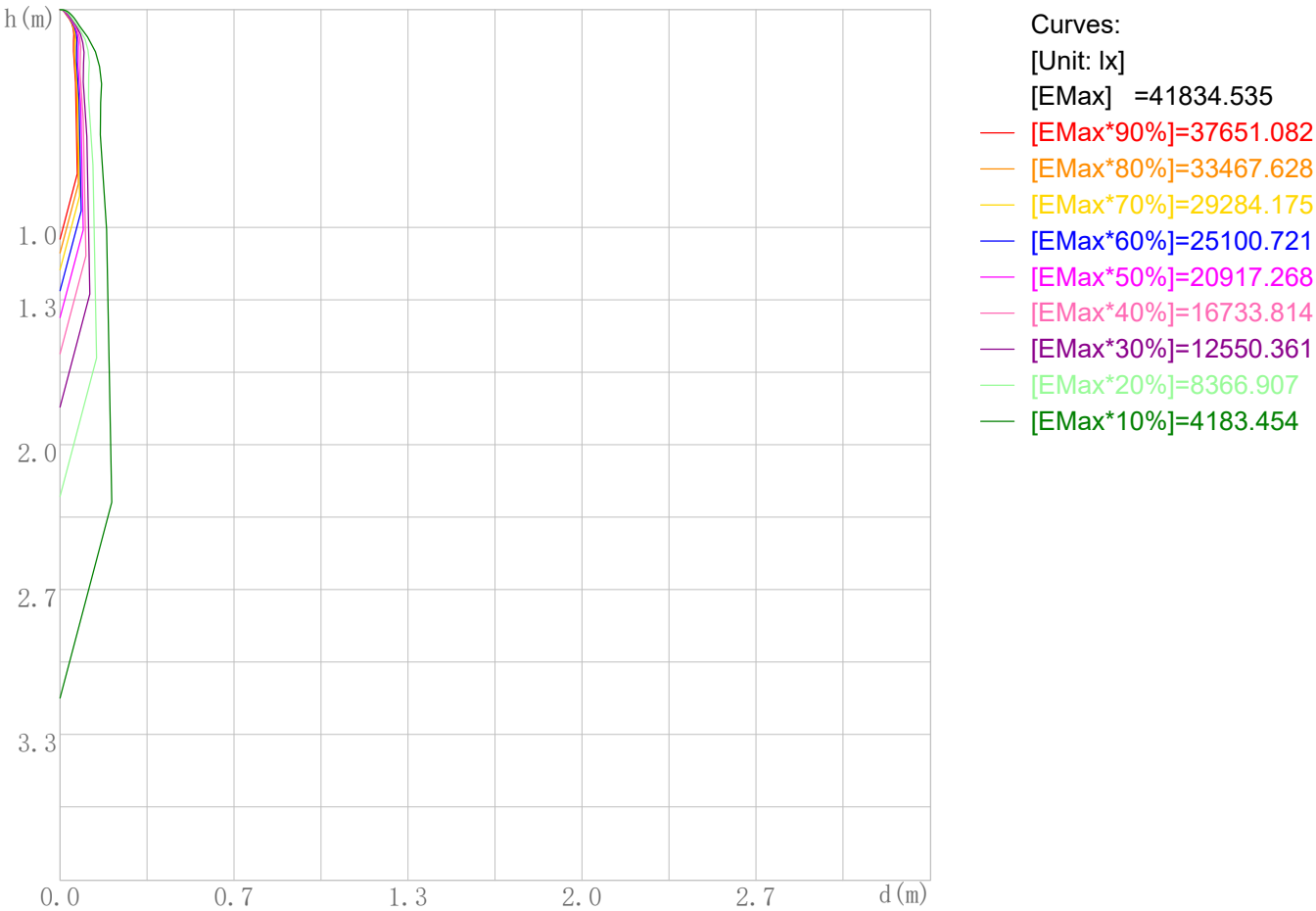
3D Plane Illuminance Modal



Space ISO Illuminance Diagram

Lum. Name:DL51-35-XX-01 4000K RA90 15D 黑色	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/11

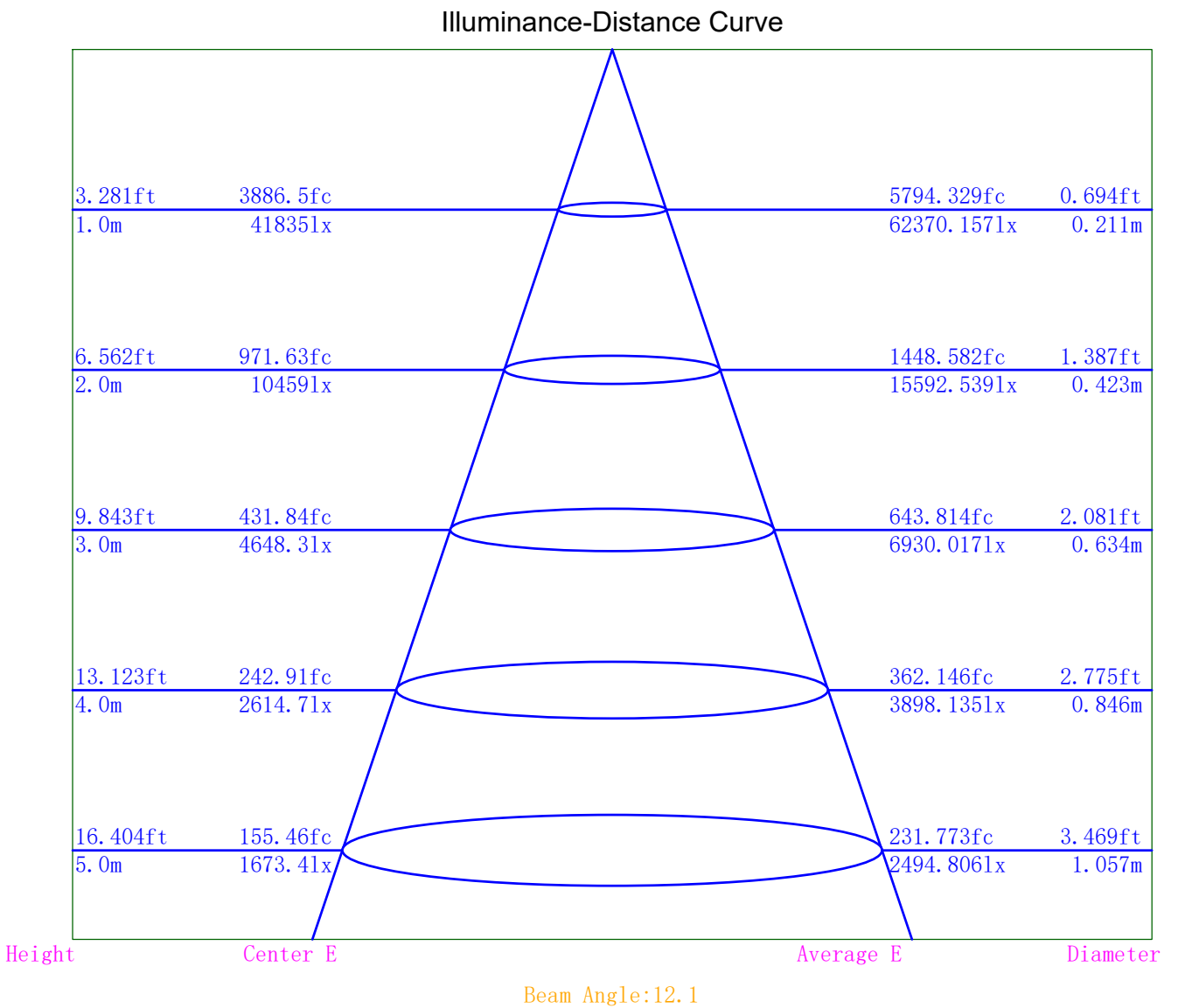
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:41834.54lx,0.0deg
Plane Maximum Lighting Intensity and @Angle:41834.535cd,0deg

Illuminance-Distance Diagram

Lum. Name:DL51-35-XX-01 4000K RA90 15D 黑色	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/11



Indoor Luminance Limiting Curves

Lum. Name:DL51-35-XX-01 4000K RA90 15D 黑色	Lum. Catalog:	Test ID:01
Lamp Name:	Lamp Catalog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/11

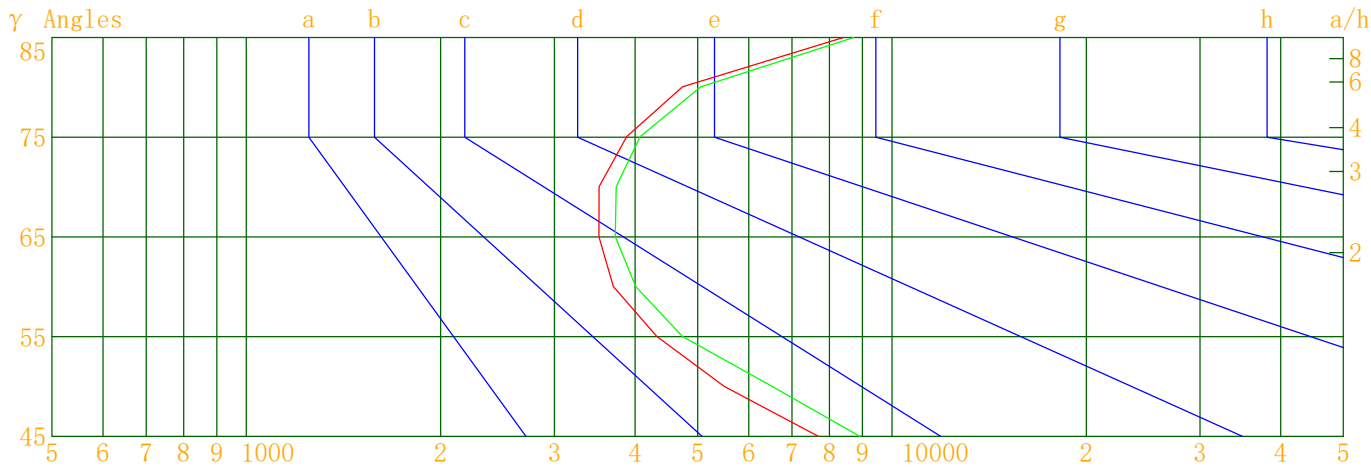
Glare Grade Table

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	7694	5498	4324	3701	3517	3519	3882	4737	8409
C90	8919	6521	4738	4010	3727	3741	4073	5056	8725

Luminance Limiting Curve



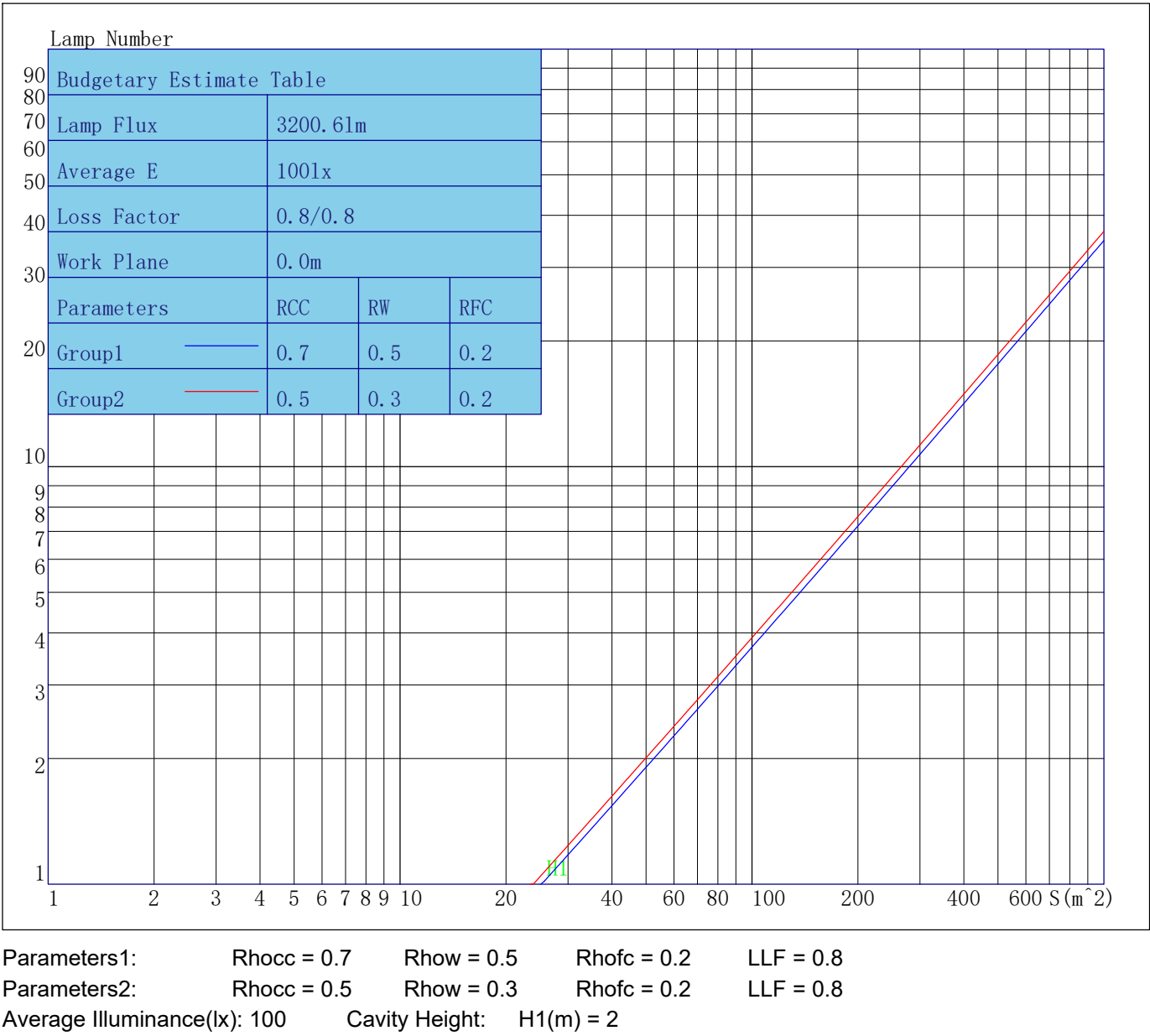
Luminous Size:Length(m)=0.110Width(m)=0.110Height(m)=0.000Area(m^2)=0.012100

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 15D 黑色	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/11



Indoor Coefficient of Utilization Table

Lum. Name:DL51-35-XX-01 4000K RA90 15D 黑色	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/11

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	119	119	119	119	116	116	116	116	110	110	110	105	105	105	100	100	100	98
1	115	113	111	109	112	110	109	107	106	105	104	102	101	100	99	98	97	95
2	111	108	105	102	109	106	103	101	103	100	99	99	98	96	97	95	94	93
3	108	104	100	97	106	102	99	97	99	97	95	97	95	93	95	93	92	90
4	105	100	96	94	103	99	96	93	97	94	92	95	92	90	93	91	89	88
5	102	97	93	90	101	96	93	90	94	91	89	93	90	88	91	89	87	86
6	100	94	91	88	99	94	90	87	92	89	87	91	88	86	90	87	86	84
7	98	92	88	86	97	91	88	85	90	87	85	89	86	84	88	86	84	83
8	96	90	86	84	95	89	86	84	88	85	83	87	85	83	87	84	82	81
9	94	88	85	82	93	88	84	82	87	84	82	86	83	81	85	83	81	80
10	92	86	83	81	91	86	83	81	85	82	80	85	82	80	84	82	80	79

Unified Glare Rating Table

Lum. Name:DL51-35-XX-01 4000K RA90 15D 黑色	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/11

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	12.3	13.1	12.7	13.5	13.8	13.0	13.8	13.4	14.2	14.5
	12.6	13.3	13.0	13.7	14.1	13.2	14.0	13.7	14.4	14.8
	12.8	13.5	13.3	13.9	14.4	13.5	14.1	13.9	14.5	15.0
	13.2	13.8	13.6	14.2	14.7	13.8	14.4	14.2	14.8	15.3
	13.4	14.0	13.9	14.4	14.9	14.0	14.6	14.5	15.0	15.5
	13.8	14.3	14.2	14.7	15.2	14.3	14.9	14.8	15.3	15.8
X=4H Y=2H	12.2	12.9	12.7	13.3	13.7	12.9	13.6	13.3	14.0	14.4
	12.7	13.3	13.2	13.7	14.2	13.3	13.9	13.8	14.3	14.8
	13.1	13.6	13.6	14.1	14.6	13.7	14.2	14.2	14.6	15.1
	13.7	14.1	14.2	14.6	15.1	14.2	14.6	14.7	15.1	15.6
	14.1	14.4	14.6	14.9	15.4	14.6	14.9	15.1	15.4	15.9
	14.6	14.9	15.1	15.4	15.9	15.0	15.3	15.6	15.9	16.4
X=8H Y=4H	13.3	13.6	13.8	14.1	14.6	13.8	14.2	14.3	14.6	15.2
	14.0	14.3	14.6	14.8	15.4	14.5	14.8	15.1	15.3	15.9
	14.6	14.8	15.1	15.4	15.9	15.0	15.3	15.6	15.8	16.4
	15.3	15.5	15.9	16.1	16.7	15.7	15.9	16.3	16.5	17.1
X=12H Y=4H	13.3	13.6	13.8	14.1	14.6	13.8	14.1	14.3	14.6	15.1
	14.1	14.4	14.7	14.9	15.5	14.6	14.8	15.2	15.3	15.9
	14.8	15.0	15.3	15.5	16.1	15.2	15.4	15.8	15.9	16.6
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	0.2/-0.2					0.2/-0.2				
Reduced UGR Table:										
Nordic Standard Table:	BK0					BK0				
Correction Value	2.3					2.1				

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	41834.5	41834.5	41834.5	41834.5
γ 5.0	21666.8	27998.1	29307.2	22405.0
γ 10.0	4469.3	6439.6	6657.8	4585.9
γ 15.0	1534.6	1809.2	1733.9	1459.4
γ 20.0	923.0	992.6	923.6	837.2
γ 25.0	653.6	699.4	599.4	543.4
γ 30.0	440.5	482.2	375.6	341.0
γ 35.0	285.4	325.5	249.6	228.9
γ 40.0	148.3	185.7	160.7	144.7
γ 45.0	65.8	76.3	70.1	62.1
γ 50.0	42.8	50.7	48.2	42.2
γ 55.0	30.0	32.9	32.2	30.3
γ 60.0	22.4	24.3	25.3	23.6
γ 65.0	18.0	19.1	20.1	19.3
γ 70.0	14.6	15.5	16.4	15.3
γ 75.0	12.2	12.8	12.8	12.3
γ 80.0	10.0	10.6	10.8	10.3
γ 85.0	8.9	9.2	9.7	9.1
γ 90.0	7.6	7.8	8.1	7.2
γ 95.0	6.4	6.8	5.8	4.8
γ 100.0	5.6	6.0	4.4	3.6
γ 105.0	5.4	5.5	4.0	3.8
γ 110.0	4.9	5.5	4.3	3.8
γ 115.0	4.3	4.7	4.0	4.5
γ 120.0	4.0	3.7	4.5	5.0
γ 125.0	4.3	3.8	5.6	5.5
γ 130.0	5.1	4.9	5.9	6.0
γ 135.0	6.9	6.3	7.1	7.8
γ 140.0	11.0	9.4	10.4	12.6
γ 145.0	16.3	15.0	16.1	18.0
γ 150.0	20.2	19.4	20.0	20.7
γ 155.0	21.6	21.1	21.9	21.5
γ 160.0	22.2	20.6	22.7	20.9
γ 165.0	22.6	21.3	22.8	21.0
γ 170.0	22.0	22.4	22.7	22.1
γ 175.0	18.8	20.4	20.0	19.5
γ 180.0	17.1	17.1	17.1	17.1