

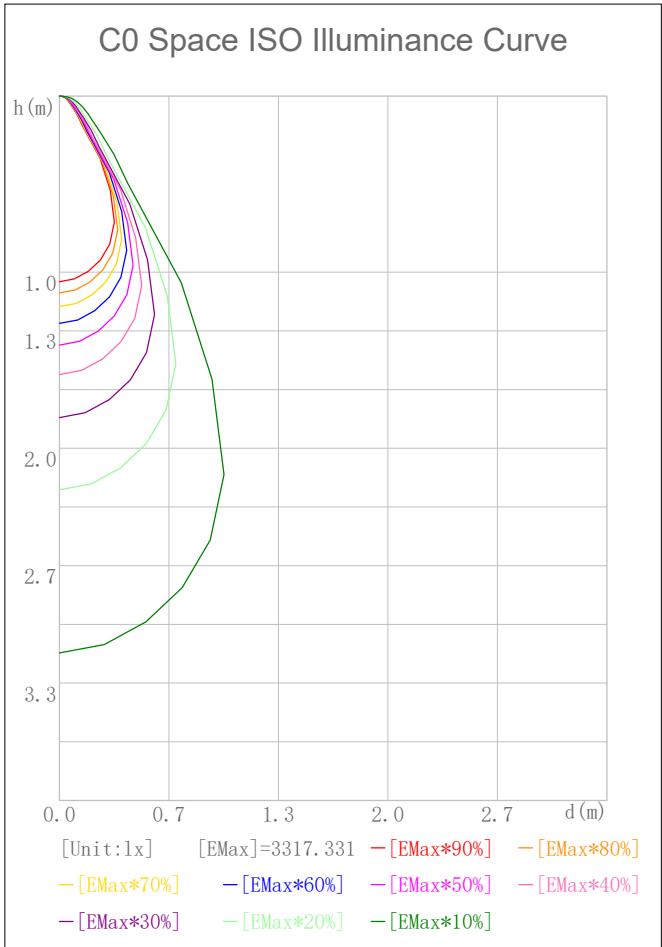
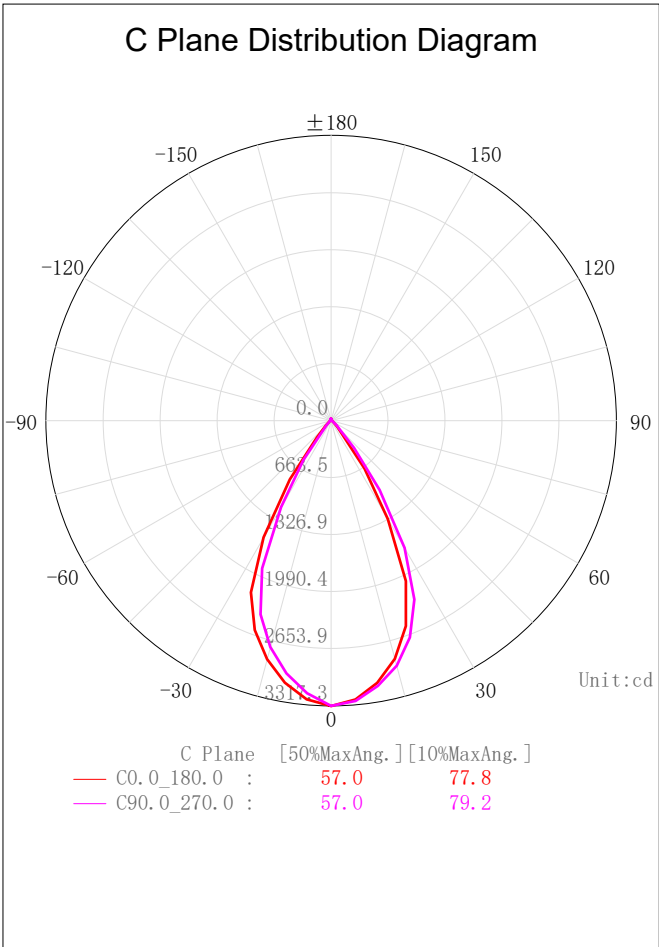
Indoor Luminaire Photometric Data

Description Information

Luminary Name: DL51-35-XX-01 4000K RA90 60D 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

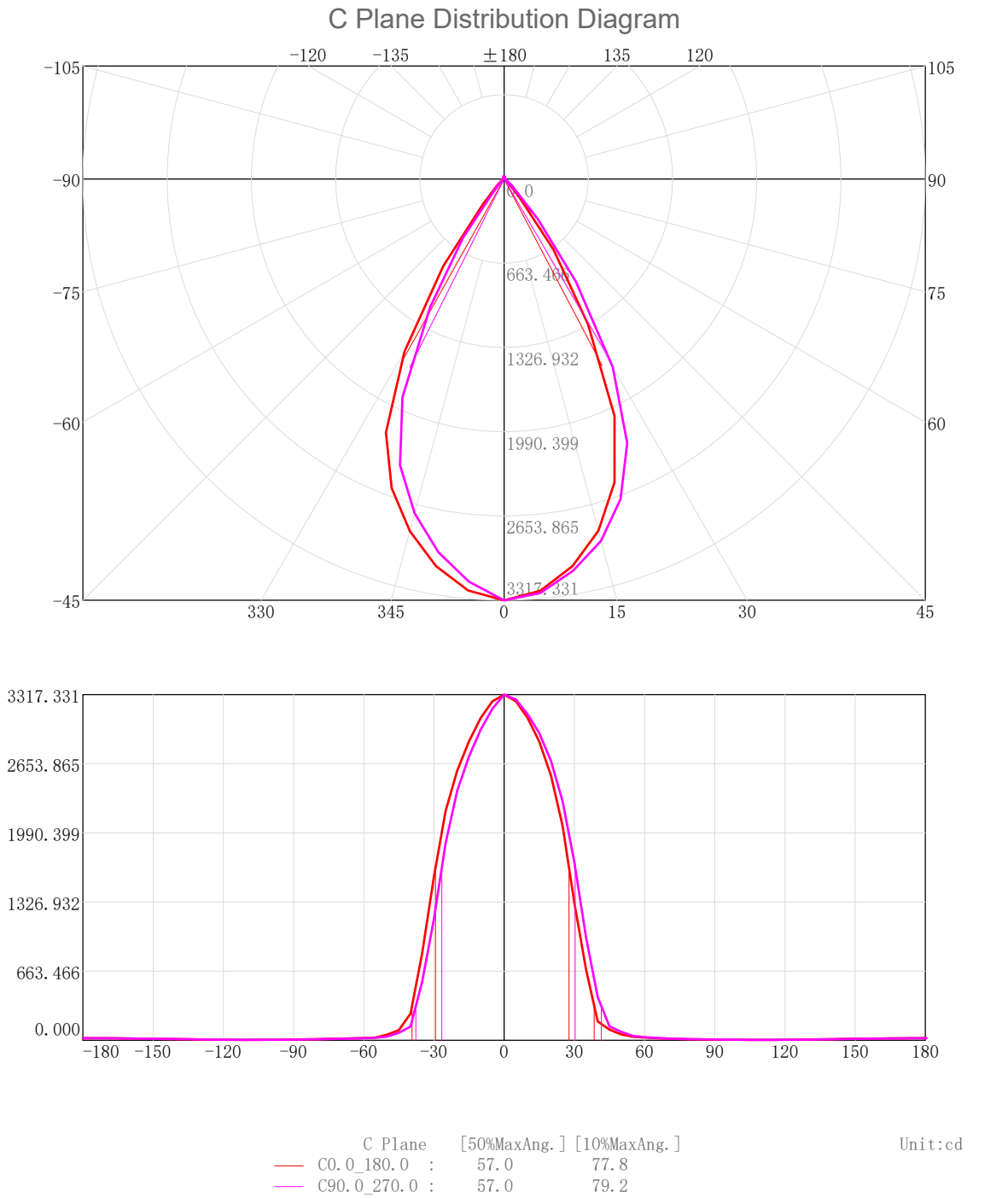
Character Parameter

Lamp Speciality Parameter	Luminaire Speciality Parameter	
Rated Flux(lm): 2768.920	Luminary Flux(lm): 2768.922	Field Angle(10%Imax): 77.8(°)
Rated Power(W):	Luminary Efficiency: 100.00%	Down Lumens&Percent: 2710.791lm 97.90%
Rated Voltage(V):	Luminary EER(lm/W): 81.559	Up Lumens&Percent: 58.131lm 2.10%
Tested Power(W): 33.950	Max. Candela(cd): 3317.331	S/MH: C0_a180=0.906 C90_270=0.896
Lamps' Inside: 1	Max Cand@Ang. (°): C=0.0 γ=0.0	CIE Type: Semi-Direct
Tested Electrics (V, A, pf): 240.1, 0.147, 0.961	Beam Angle(50%Imax): 57.0(°)	ErP Φ use(90°): 2663.296lm
Lamp Size (W*L*H): 0.110m*0.110m*0.000m	Left=-29.3°, Right=27.7°	IRF (%): 265.535



2D Plane Light Intensity Distribution Curve

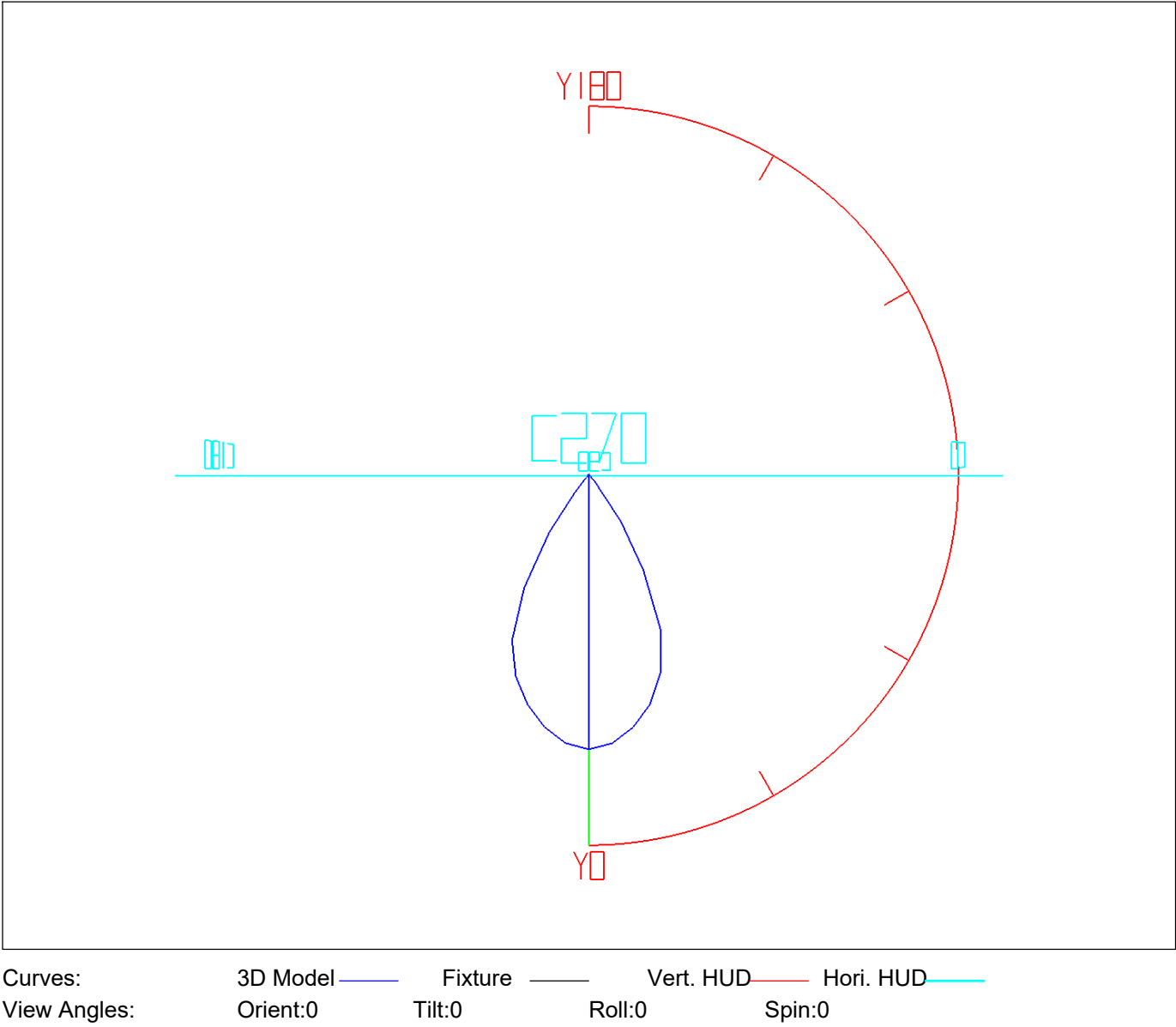
Lum. Name:DL51-35-XX-01 4000K RA90 60D 黑色	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/11



3D Light Intensity Distribution Modal

Lum. Name:DL51-35-XX-01 4000K RA90 60D 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

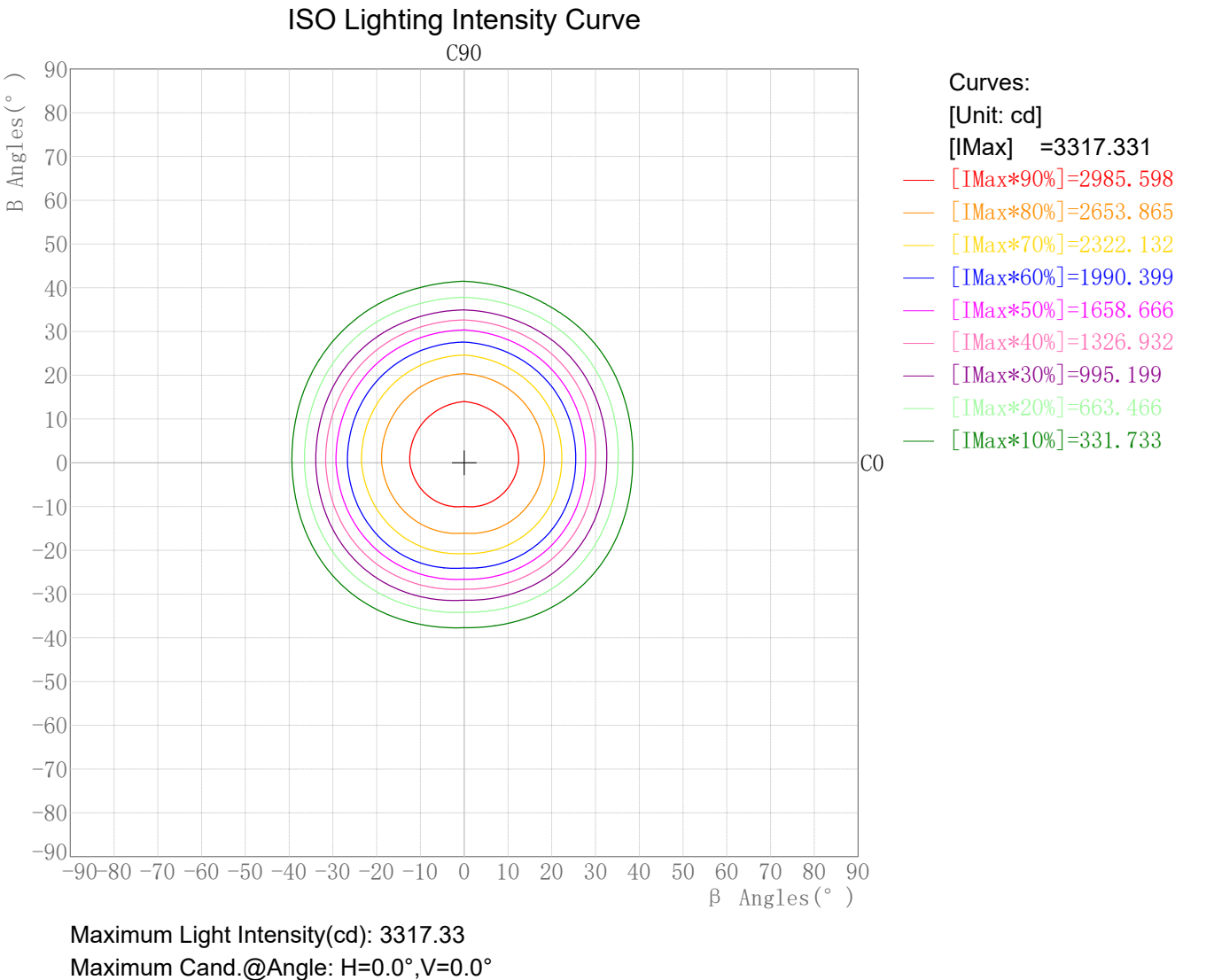


Zonal Flux Tabulation

Zone(γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-5.0	78.39	78.39	2.83	2.83
5.0-10.0	225.95	304.34	8.16	10.99
10.0-15.0	351.70	656.03	12.70	23.69
15.0-20.0	445.47	1101.50	16.09	39.78
20.0-25.0	489.24	1590.74	17.67	57.45
25.0-30.0	449.63	2040.38	16.24	73.69
30.0-35.0	324.84	2365.21	11.73	85.42
35.0-40.0	168.84	2534.05	6.10	91.52
40.0-45.0	64.69	2598.74	2.34	93.85
45.0-50.0	32.49	2631.23	1.17	95.03
50.0-55.0	19.70	2650.93	0.71	95.74
55.0-60.0	13.34	2664.27	0.48	96.22
60.0-65.0	11.16	2675.42	0.40	96.62
65.0-70.0	9.57	2684.99	0.35	96.97
70.0-75.0	8.11	2693.10	0.29	97.26
75.0-80.0	6.85	2699.95	0.25	97.51
80.0-85.0	5.85	2705.80	0.21	97.72
85.0-90.0	4.99	2710.79	0.18	97.90
90.0-95.0	4.23	2715.02	0.15	98.05
95.0-100.0	3.63	2718.64	0.13	98.18
100.0-105.0	3.22	2721.87	0.12	98.30
105.0-110.0	2.97	2724.83	0.11	98.41
110.0-115.0	2.84	2727.67	0.10	98.51
115.0-120.0	2.94	2730.62	0.11	98.62
120.0-125.0	3.22	2733.84	0.12	98.73
125.0-130.0	3.54	2737.37	0.13	98.86
130.0-135.0	3.88	2741.25	0.14	99.00
135.0-140.0	4.15	2745.40	0.15	99.15
140.0-145.0	4.28	2749.68	0.15	99.31
145.0-150.0	4.27	2753.94	0.15	99.46
150.0-155.0	4.04	2757.98	0.15	99.60
155.0-160.0	3.61	2761.59	0.13	99.74
160.0-165.0	3.03	2764.63	0.11	99.84
165.0-170.0	2.32	2766.95	0.08	99.93
170.0-175.0	1.47	2768.42	0.05	99.98
175.0-180.0	0.51	2768.92	0.02	100.00

Rectangle ISO Lighting Intensity Diagram

Lum. Name:DL51-35-XX-01 4000K RA90 60D 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

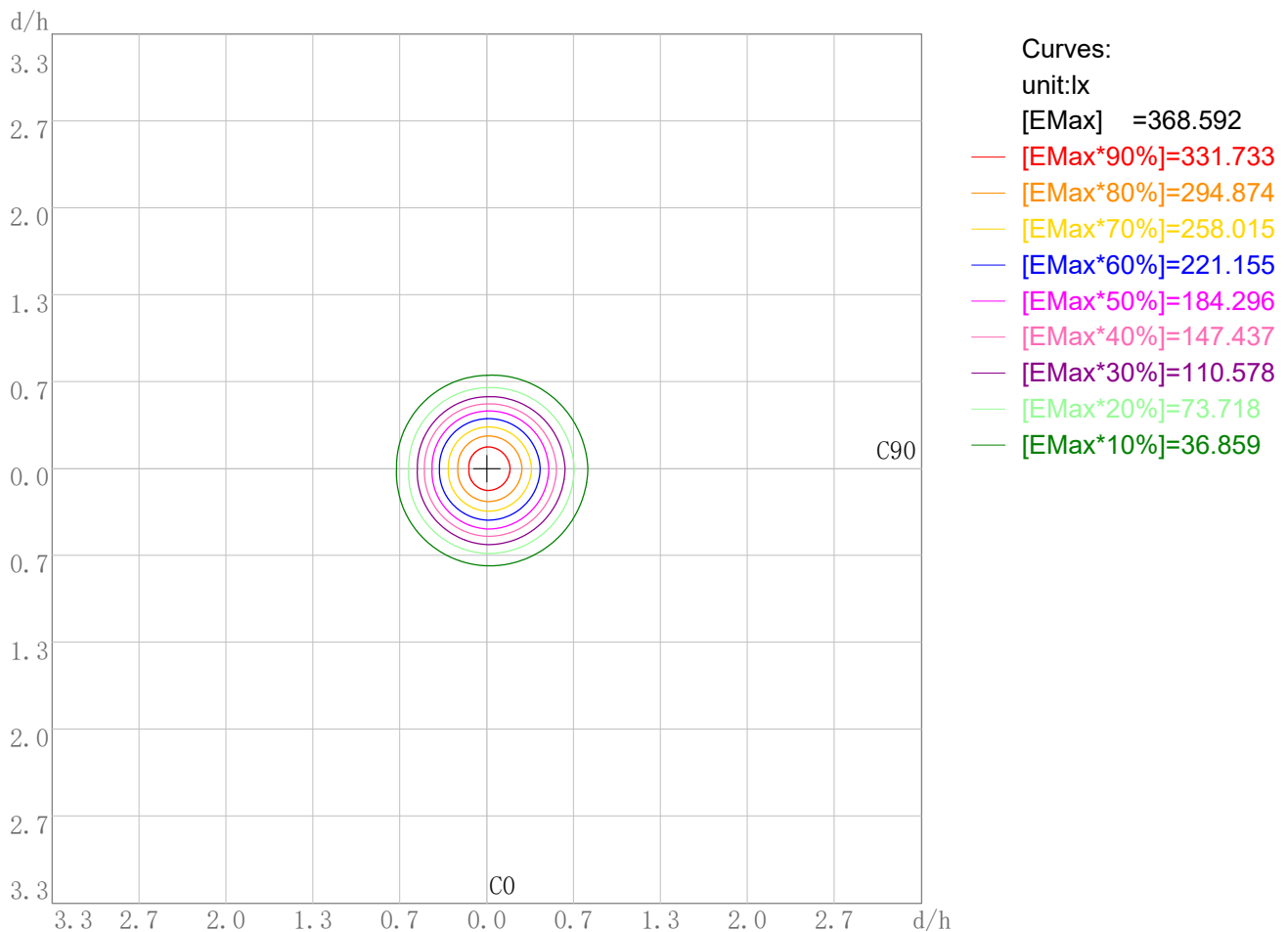


Photometric Filename:DL51-35-XX-01 4000K RA90 60D 黑色.IES

## Plane ISO-Illuminance Diagram

Lum. Name: DL51-35-XX-01 4000K RA90 60D 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

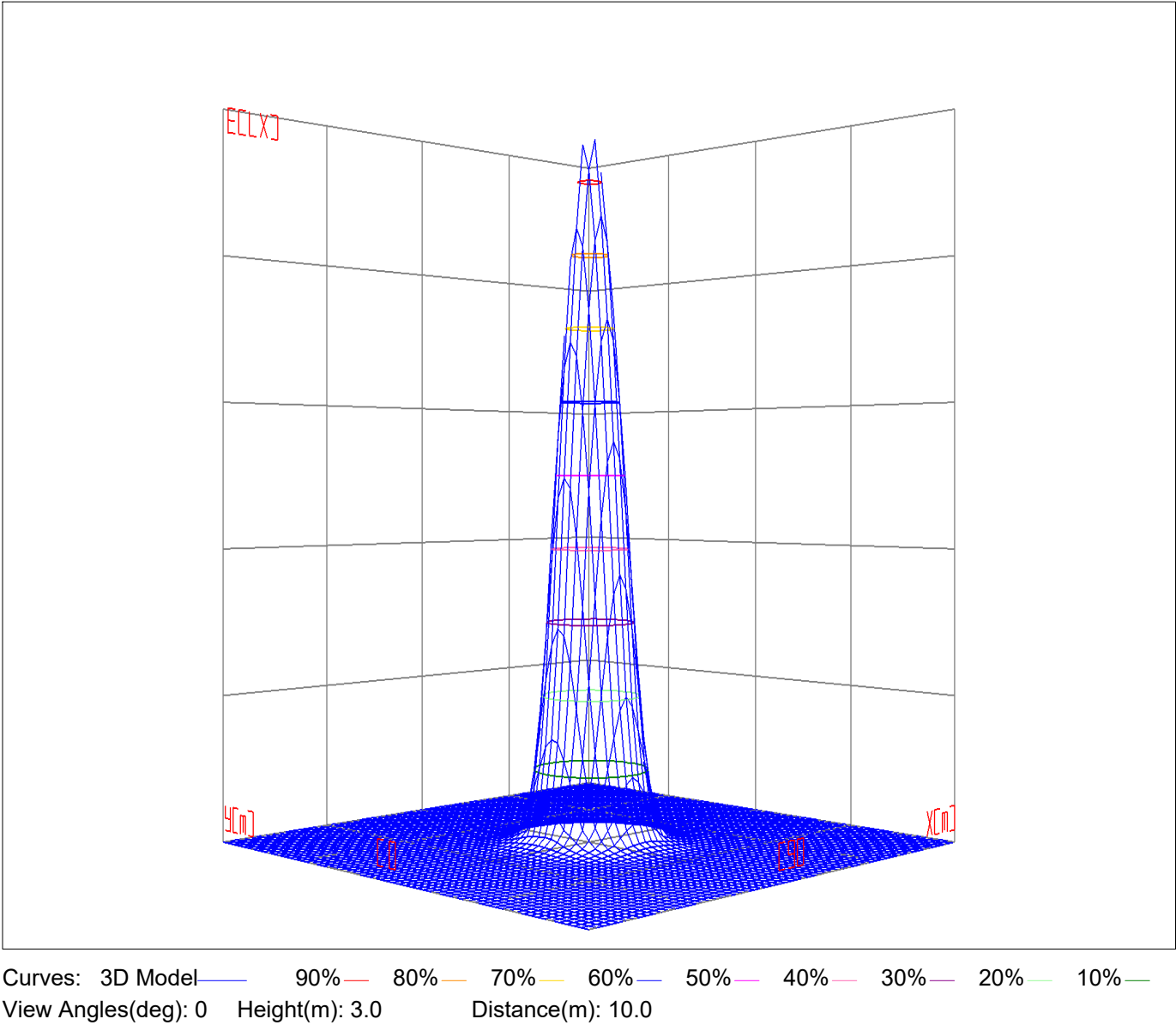
Working Plane Maximum Illuminance(lx): 368.59

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 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

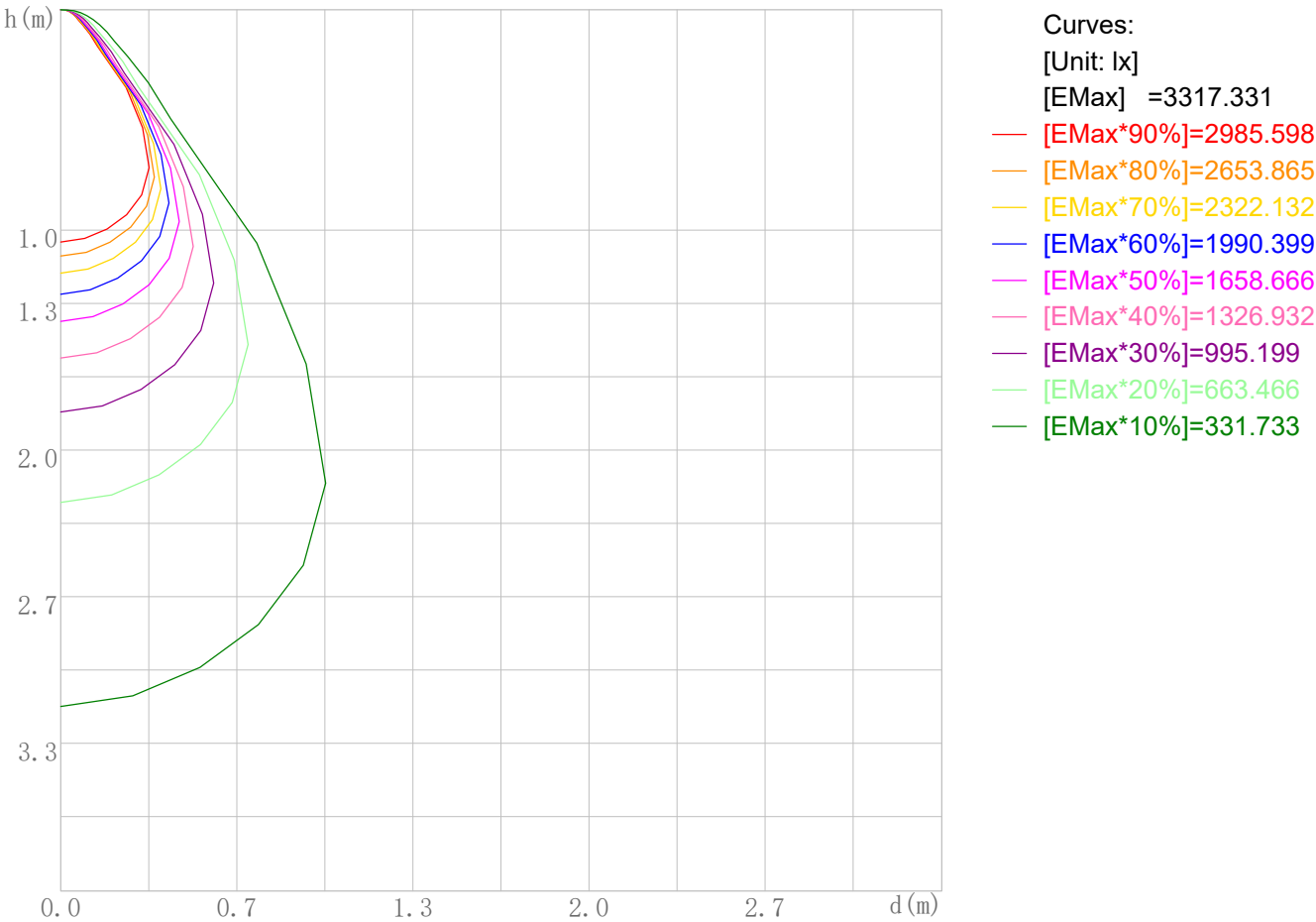
3D Plane Illuminance Modal



Space ISO Illuminance Diagram

Lum. Name: DL51-35-XX-01 4000K RA90 60D 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

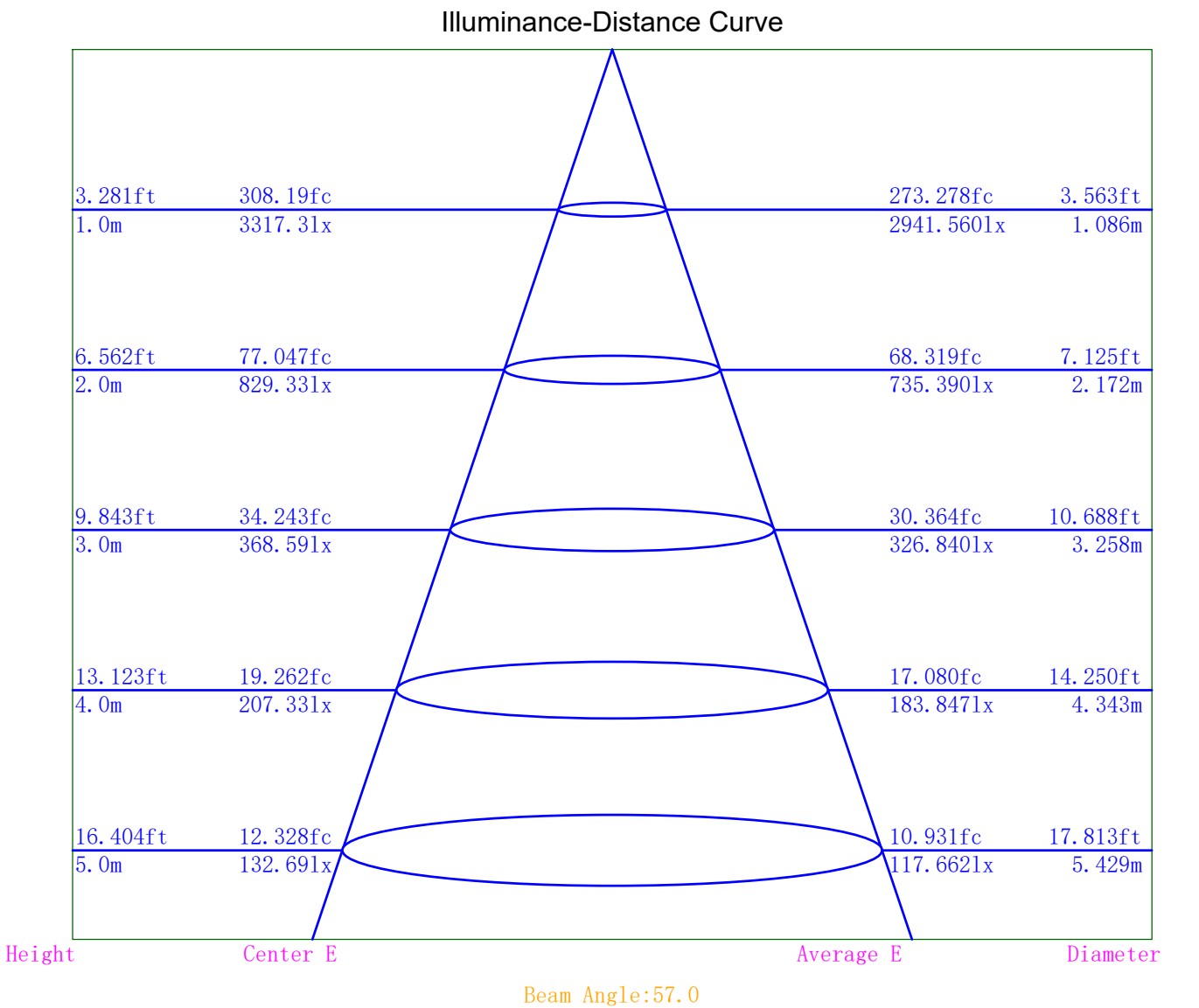


Space Plane Maximum Illuminance and @Angle:3317.33lx,0.0deg  
Plane Maximum Lighting Intensity and @Angle:3317.331cd,0deg



Illuminance-Distance Diagram

Lum. Name:DL51-35-XX-01 4000K RA90 60D 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 60D 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

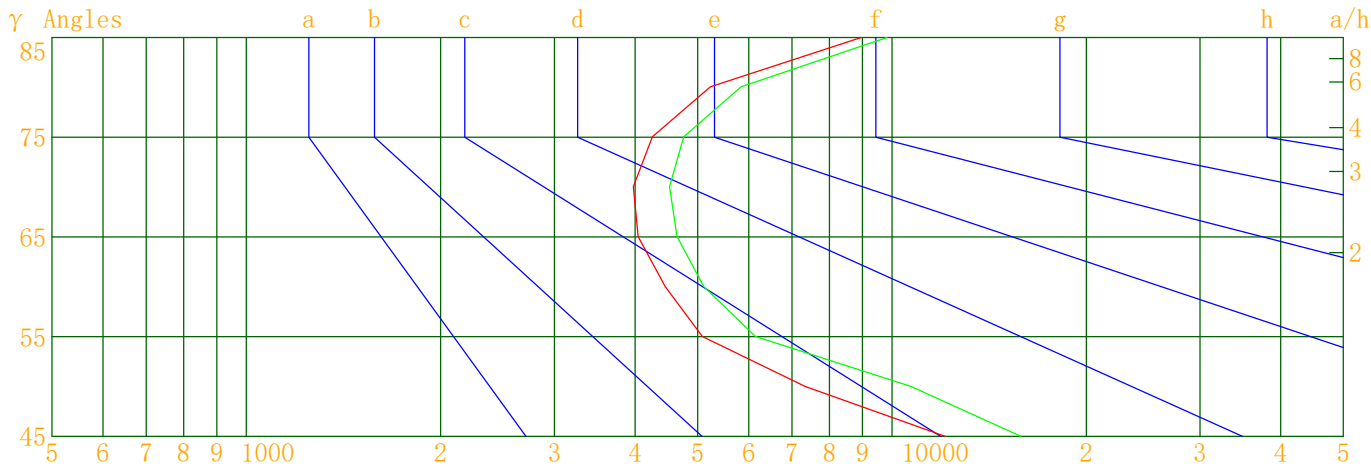
Glare Grade Table

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	12091	7336	5084	4453	4044	3976	4256	5233	8957
C90	15839	10700	6147	5112	4647	4524	4759	5839	9818

Luminance Limiting Curve



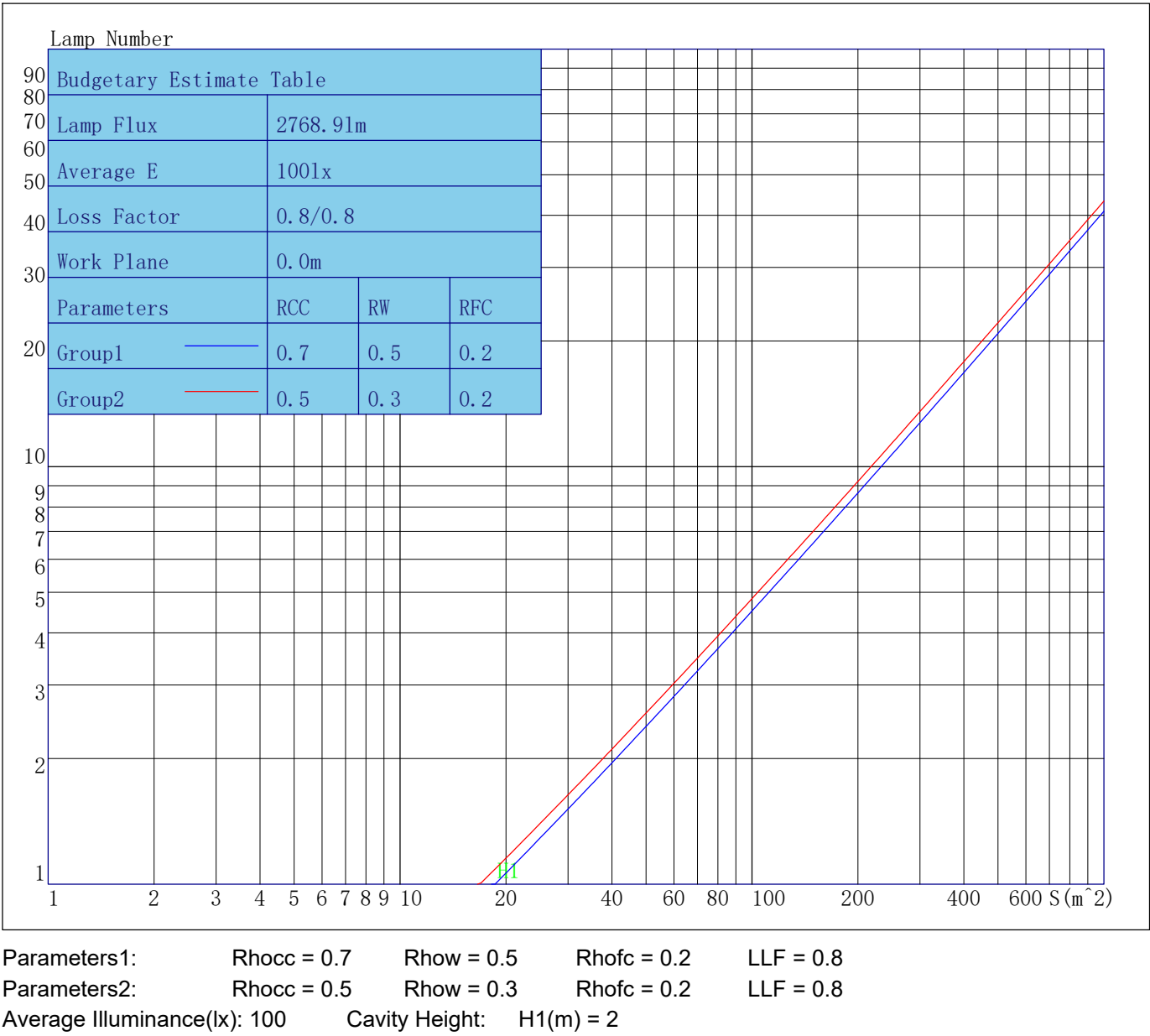
Luminous Size:Length(m)=0.110Width(m)=0.110Height(m)=0.000Area(m^2)=0.012100

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 60D 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



Indoor Coefficient of Utilization Table

Lum. Name:DL51-35-XX-01 4000K RA90 60D 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	113	110	107	105	110	108	105	103	103	101	100	99	98	96	95	94	93	91
2	107	102	98	95	105	100	97	94	97	94	91	94	91	89	91	89	87	85
3	102	95	91	87	100	94	89	86	91	87	84	88	85	82	86	83	81	79
4	97	89	84	80	95	88	83	79	86	81	78	83	80	77	81	78	76	74
5	92	84	78	74	90	83	77	73	81	76	72	79	75	72	77	74	71	69
6	88	79	73	69	86	78	72	68	76	71	68	75	70	67	73	69	66	65
7	83	74	68	64	82	73	68	64	72	67	63	71	66	63	69	65	62	61
8	79	70	64	60	78	69	64	60	68	63	60	67	63	59	66	62	59	57
9	76	66	61	57	75	66	60	56	65	60	56	64	59	56	63	59	56	54
10	72	63	57	53	71	62	57	53	61	56	53	60	56	53	60	55	53	51

Unified Glare Rating Table

Lum. Name: DL51-35-XX-01 4000K RA90 60D 黑色	Lum. Catelog:	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

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	17.9	18.8	18.3	19.2	19.5	19.8	20.7	20.3	21.1	21.5	
	Y=3H	17.8	18.6	18.3	19.0	19.4	19.8	20.5	20.2	20.9	21.3
	Y=4H	17.9	18.6	18.3	19.0	19.4	19.7	20.5	20.2	20.9	21.3
	Y=6H	17.9	18.6	18.4	19.0	19.4	19.7	20.4	20.2	20.8	21.3
	Y=8H	17.9	18.6	18.4	19.0	19.5	19.8	20.4	20.2	20.8	21.3
	Y=12H	18.0	18.6	18.5	19.0	19.5	19.8	20.4	20.3	20.8	21.3
X=4H    Y=2H	17.7	18.4	18.1	18.8	19.2	19.6	20.3	20.0	20.7	21.2	
	Y=3H	17.7	18.3	18.1	18.7	19.2	19.5	20.1	20.0	20.6	21.0
	Y=4H	17.7	18.3	18.2	18.7	19.2	19.5	20.1	20.0	20.5	21.0
	Y=6H	17.9	18.3	18.4	18.8	19.3	19.6	20.1	20.1	20.6	21.1
	Y=8H	18.0	18.4	18.5	18.9	19.4	19.7	20.1	20.2	20.6	21.1
	Y=12H	18.2	18.5	18.7	19.1	19.6	19.8	20.2	20.3	20.7	21.2
X=8H    Y=4H	17.7	18.1	18.2	18.6	19.1	19.4	19.8	20.0	20.3	20.9	
	Y=6H	17.9	18.2	18.5	18.8	19.3	19.6	19.9	20.1	20.4	21.0
	Y=8H	18.1	18.4	18.7	19.0	19.5	19.7	20.0	20.3	20.6	21.1
	Y=12H	18.5	18.7	19.1	19.2	19.9	20.0	20.2	20.5	20.7	21.4
X=12H    Y=4H	17.6	18.0	18.2	18.5	19.0	19.4	19.7	19.9	20.3	20.8	
	Y=6H	17.9	18.2	18.5	18.7	19.3	19.6	19.8	20.1	20.4	20.9
	Y=8H	18.2	18.4	18.8	19.0	19.6	19.8	20.0	20.3	20.5	21.2
Variations with the objerver 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	0.3/-0.3					0.3/-0.3					
Reduced UGR Table:											
Nordic Standard Table:	BK0					BK0					
Correction Value	1.0					0.7					

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	3317.33	3317.33	3317.33	3317.33
γ 5.0	3254.53	3271.69	3252.44	3181.72
γ 10.0	3095.28	3131.21	3093.97	2983.41
γ 15.0	2867.51	2949.44	2870.11	2724.52
γ 20.0	2541.35	2681.23	2589.83	2396.94
γ 25.0	2058.43	2293.21	2202.91	1894.95
γ 30.0	1320.77	1709.90	1568.26	1163.54
γ 35.0	677.54	985.59	835.27	562.82
γ 40.0	181.65	415.01	257.39	132.55
γ 45.0	103.45	135.52	98.47	73.44
γ 50.0	57.06	83.22	55.71	36.30
γ 55.0	35.29	42.66	27.73	24.35
γ 60.0	26.94	30.93	22.52	20.44
γ 65.0	20.68	23.76	20.04	18.28
γ 70.0	16.45	18.72	17.48	15.71
γ 75.0	13.33	14.90	14.52	13.00
γ 80.0	11.00	12.27	12.38	11.00
γ 85.0	9.45	10.35	10.25	9.47
γ 90.0	8.16	8.59	8.60	8.00
γ 95.0	6.80	7.32	7.38	6.88
γ 100.0	6.07	6.43	6.54	5.99
γ 105.0	5.41	5.83	6.32	5.57
γ 110.0	5.28	5.56	5.69	5.74
γ 115.0	5.54	5.25	5.79	5.97
γ 120.0	6.24	6.08	6.46	7.12
γ 125.0	7.45	6.84	7.41	8.16
γ 130.0	8.65	8.10	8.86	9.57
γ 135.0	10.53	9.64	10.25	11.15
γ 140.0	12.34	11.11	12.03	12.53
γ 145.0	13.86	12.70	13.73	14.33
γ 150.0	15.78	14.43	15.35	15.72
γ 155.0	16.75	15.83	16.64	17.19
γ 160.0	18.01	17.14	17.98	18.15
γ 165.0	19.15	18.43	19.09	19.28
γ 170.0	20.14	19.48	20.34	20.48
γ 175.0	21.39	20.82	20.86	20.94
γ 180.0	21.32	21.32	21.32	21.32