

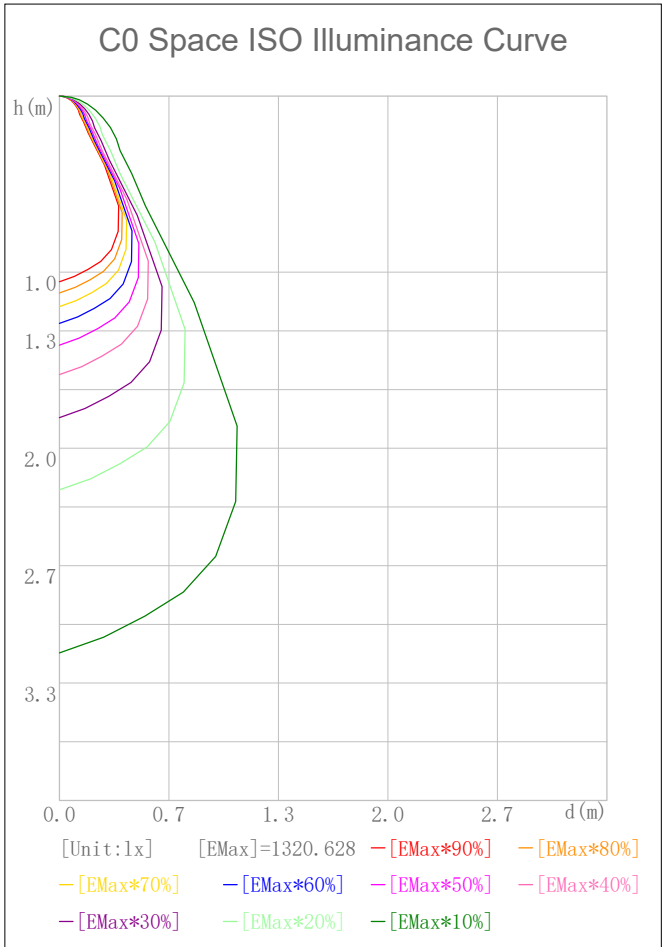
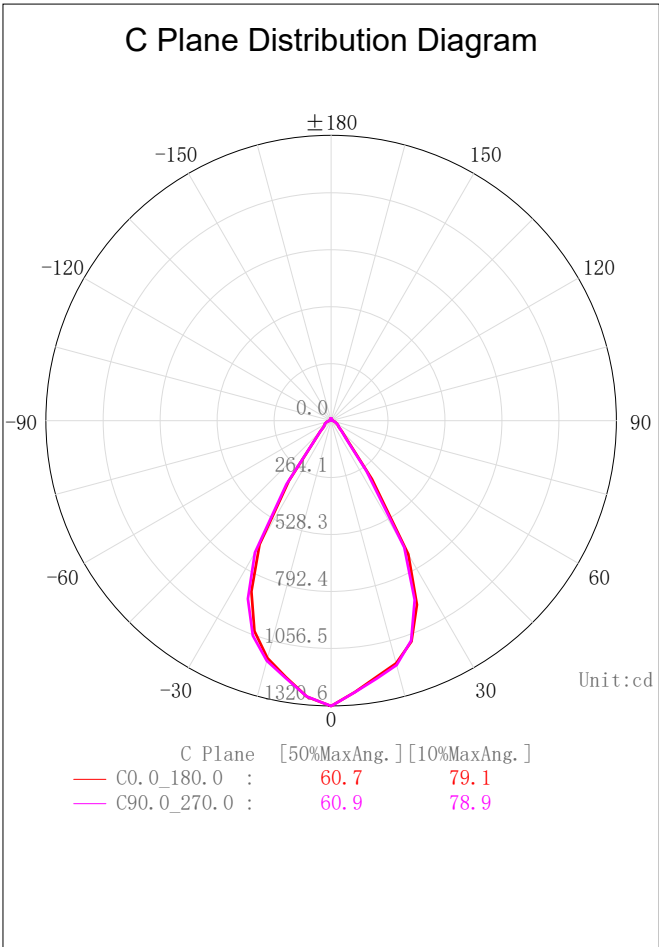
Indoor Luminaire Photometric Data

Description Information

Luminary Name: DL51-15-XX-01 2700K RA90 60D		Lum. Catalog:	Test ID: 01
Lamp Name:		Lamp Catalog: LED	Test Date: 2022/08/08
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):0.055m*-0.055m*0.000m		Lum. Area (m2):0.002	Lum. W (kg): 0.000
Test System: C, γ	Test Step: C=90.0 γ=5.0	Temp. (°C): 25	Humidity(%): 50.0

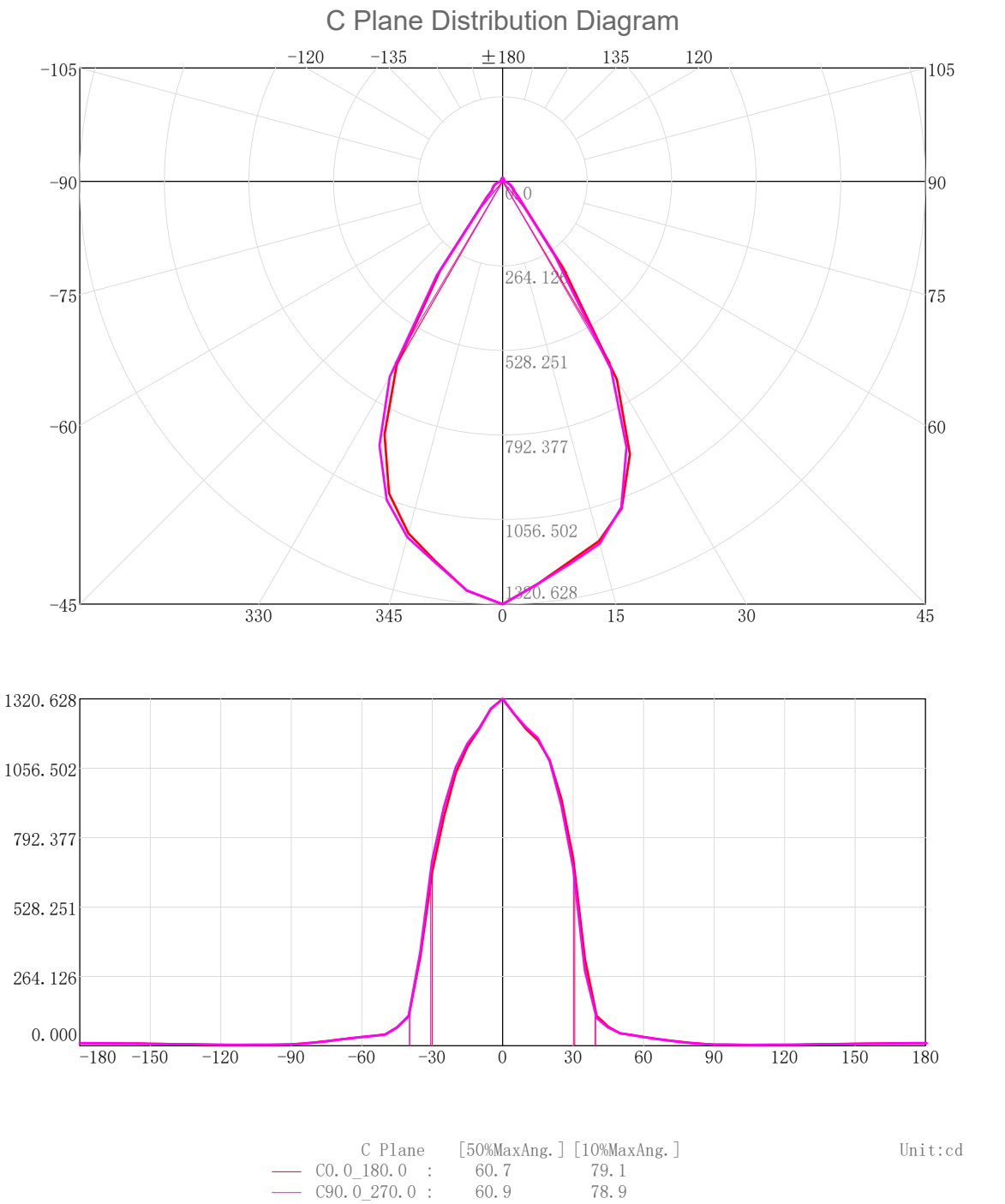
Character Parameter

Lamp Speciality Parameter		Luminaire Speciality Parameter	
Rated Flux(lm): 1257.450	Luminary Flux(lm): 1257.446	Field Angle(10%Imax): 79.1(°)	
Rated Power(W):	Luminary Efficiency: 100.00%	Down Lumens&Percent: 1223.295lm 97.28%	
Rated Voltage(V):	Luminary EER(lm/W): 88.991	Up Lumens&Percent: 34.150lm 2.72%	
Tested Power(W): 14.130	Max. Candela(cd): 1320.628	S/MH: C0_a180=0.945 C90_270=0.950	
Lamps' Inside: 1	Max Cand@Ang. (°): C=0.0 γ=0.0	CIE Type: Semi-Direct	
Tested Electrics (V, A, pf):239.6, 0.060, 0.972	Beam Angle(50%Imax): 60.7(°)	ErP Φ use(90°): 1104.502lm	
Lamp Size (W*L*H):0.055m*-0.055m*0.000m	Left=-30.0°, Right=30.7°	IRF(%): 236.887	



2D Plane Light Intensity Distribution Curve

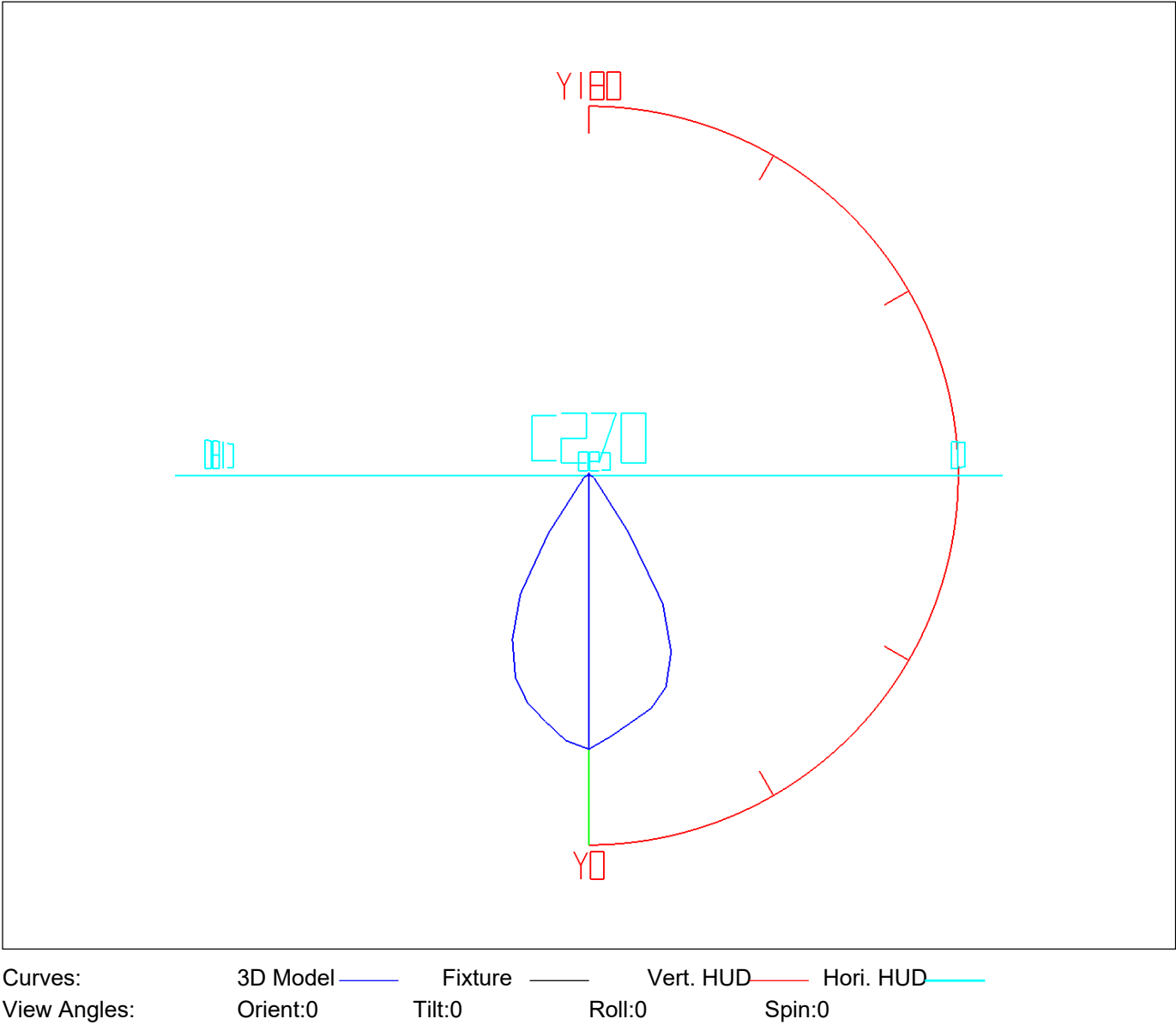
Lum. Name:DL51-15-XX-01 2700K RA90 60D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/08



3D Light Intensity Distribution Modal

Lum. Name:DL51-15-XX-01 2700K RA90 60D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/08

3D Light Intensity Distribution Modal

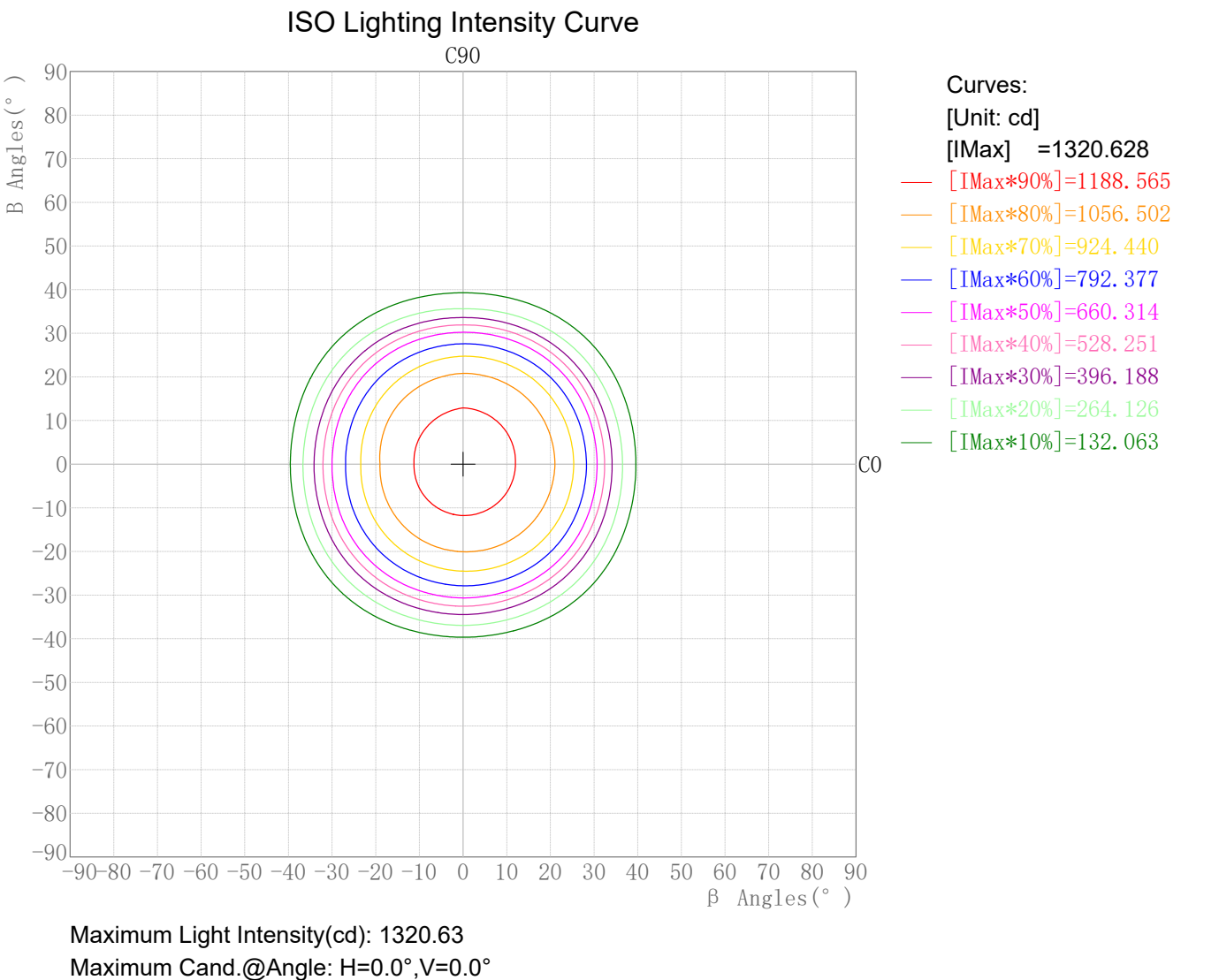


Zonal Flux Tabulation

Zone( γ )	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0. 0-5. 0	31. 00	31. 00	2. 47	2. 47
5. 0-10. 0	88. 74	119. 73	7. 06	9. 52
10. 0-15. 0	140. 22	259. 96	11. 15	20. 67
15. 0-20. 0	183. 14	443. 10	14. 56	35. 24
20. 0-25. 0	207. 27	650. 37	16. 48	51. 72
25. 0-30. 0	202. 39	852. 76	16. 10	67. 82
30. 0-35. 0	149. 99	1002. 75	11. 93	79. 74
35. 0-40. 0	73. 52	1076. 27	5. 85	85. 59
40. 0-45. 0	33. 70	1109. 97	2. 68	88. 27
45. 0-50. 0	23. 40	1133. 37	1. 86	90. 13
50. 0-55. 0	18. 55	1151. 92	1. 48	91. 61
55. 0-60. 0	17. 02	1168. 94	1. 35	92. 96
60. 0-65. 0	14. 99	1183. 93	1. 19	94. 15
65. 0-70. 0	12. 64	1196. 56	1. 00	95. 16
70. 0-75. 0	10. 11	1206. 67	0. 80	95. 96
75. 0-80. 0	7. 60	1214. 27	0. 60	96. 57
80. 0-85. 0	5. 41	1219. 68	0. 43	97. 00
85. 0-90. 0	3. 61	1223. 30	0. 29	97. 28
90. 0-95. 0	2. 68	1225. 98	0. 21	97. 50
95. 0-100. 0	2. 39	1228. 37	0. 19	97. 69
100. 0-105. 0	2. 17	1230. 53	0. 17	97. 86
105. 0-110. 0	2. 05	1232. 58	0. 16	98. 02
110. 0-115. 0	1. 98	1234. 55	0. 16	98. 18
115. 0-120. 0	1. 97	1236. 53	0. 16	98. 34
120. 0-125. 0	2. 03	1238. 56	0. 16	98. 50
125. 0-130. 0	2. 15	1240. 71	0. 17	98. 67
130. 0-135. 0	2. 29	1242. 99	0. 18	98. 85
135. 0-140. 0	2. 34	1245. 33	0. 19	99. 04
140. 0-145. 0	2. 31	1247. 64	0. 18	99. 22
145. 0-150. 0	2. 24	1249. 88	0. 18	99. 40
150. 0-155. 0	2. 08	1251. 97	0. 17	99. 56
155. 0-160. 0	1. 83	1253. 80	0. 15	99. 71
160. 0-165. 0	1. 52	1255. 32	0. 12	99. 83
165. 0-170. 0	1. 15	1256. 47	0. 09	99. 92
170. 0-175. 0	0. 72	1257. 20	0. 06	99. 98
175. 0-180. 0	0. 25	1257. 45	0. 02	100. 00

Rectangle ISO Lighting Intensity Diagram

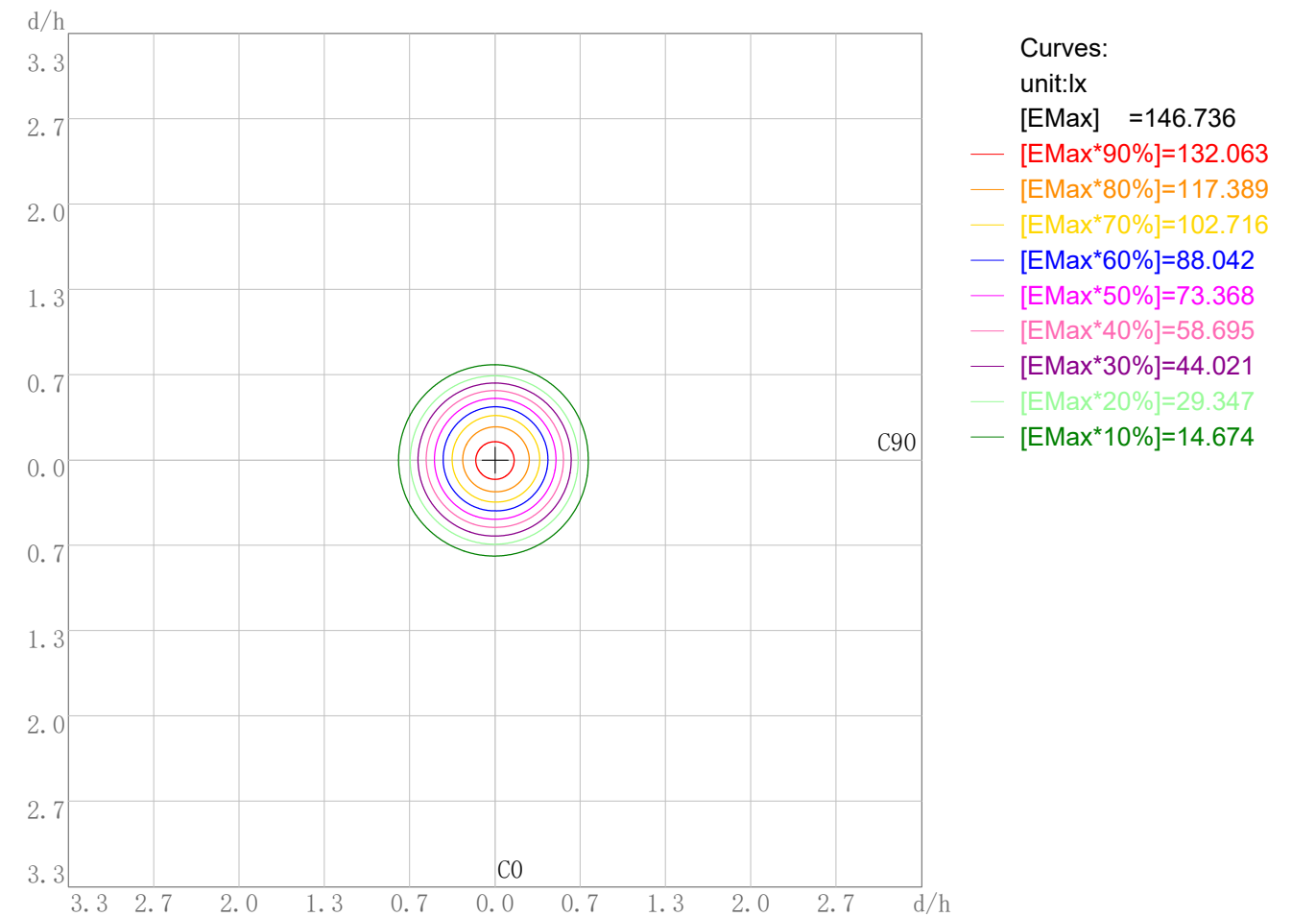
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Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/08



Plane ISO-Illuminance Diagram

Lum. Name:DL51-15-XX-01 2700K RA90 60D	Lum. Catalog:	Test ID:01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/08

Plane ISO-Illuminance Curve

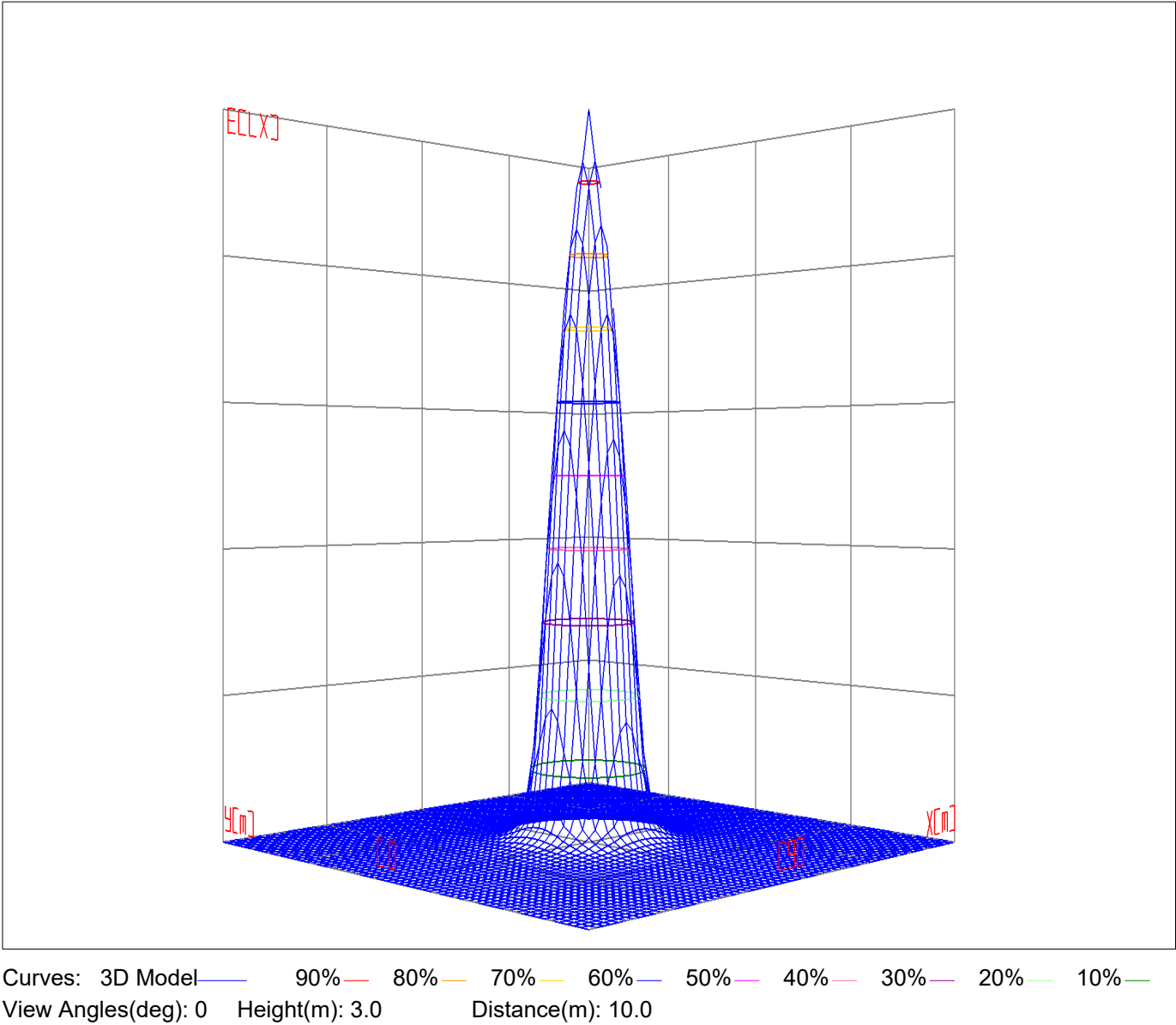


Working Plane Luminaire Mounting Height(m): 3.00  
Working Plane Maximum Illuminance(lx): 146.74  
Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

3D Plane ISO Illuminance Diagram

Lum. Name: DL51-15-XX-01 2700K RA90 60D	Lum. Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/08

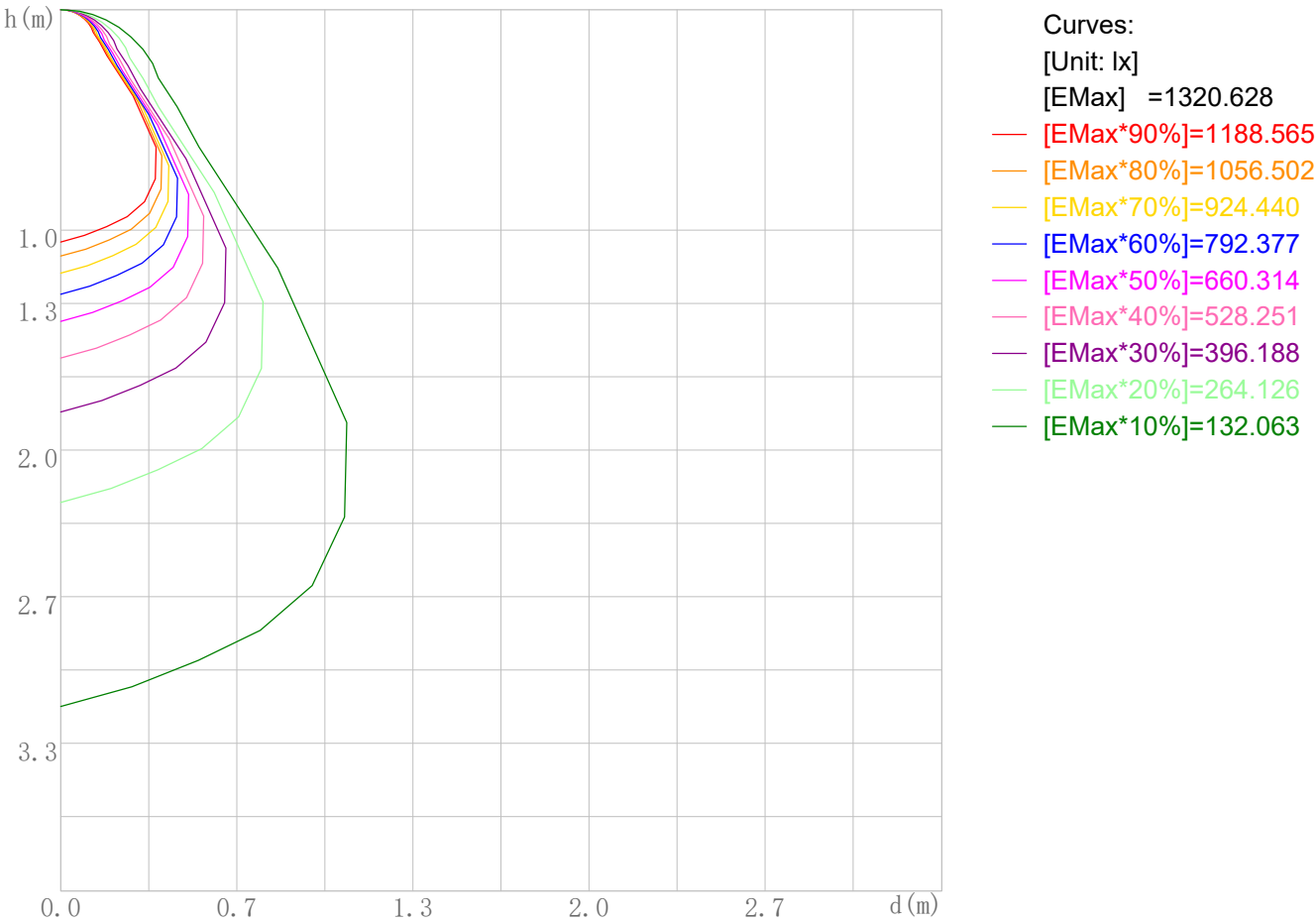
3D Plane Illuminance Modal



Space ISO Illuminance Diagram

Lum. Name: DL51-15-XX-01 2700K RA90 60D	Lum. Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/08

Space ISO Illuminance Curve

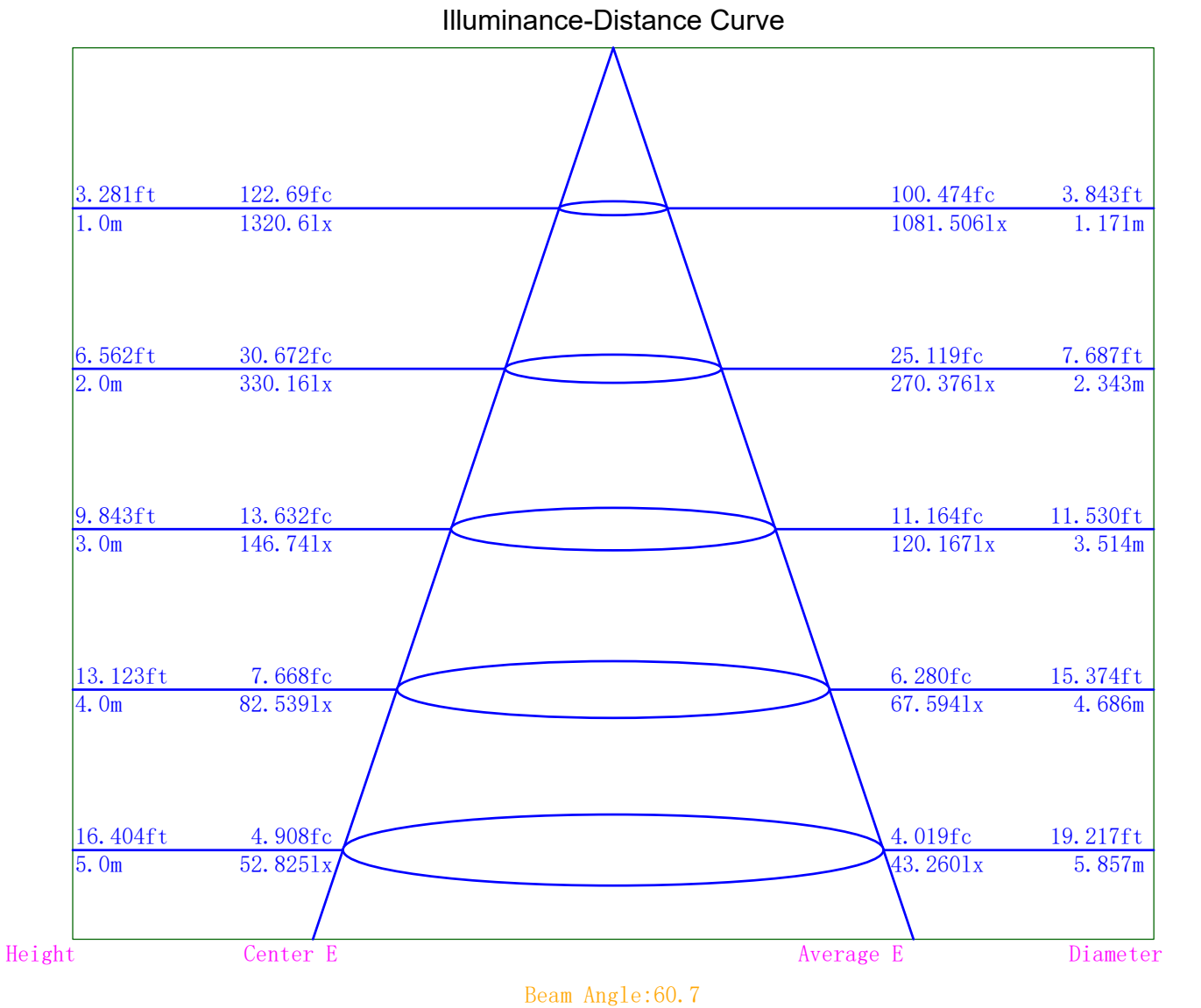


Space Plane Maximum Illuminance and @Angle:1320.63lx,0.0deg  
Plane Maximum Lighting Intensity and @Angle:1320.628cd,0deg



Illuminance-Distance Diagram

Lum. Name:DL51-15-XX-01 2700K RA90 60D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/08



Indoor Luminance Limiting Curves

Lum. Name:DL51-15-XX-01 2700K RA90 60D	Lum. Catalog:	Test ID:01
Lamp Name:	Lamp Catalog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/08

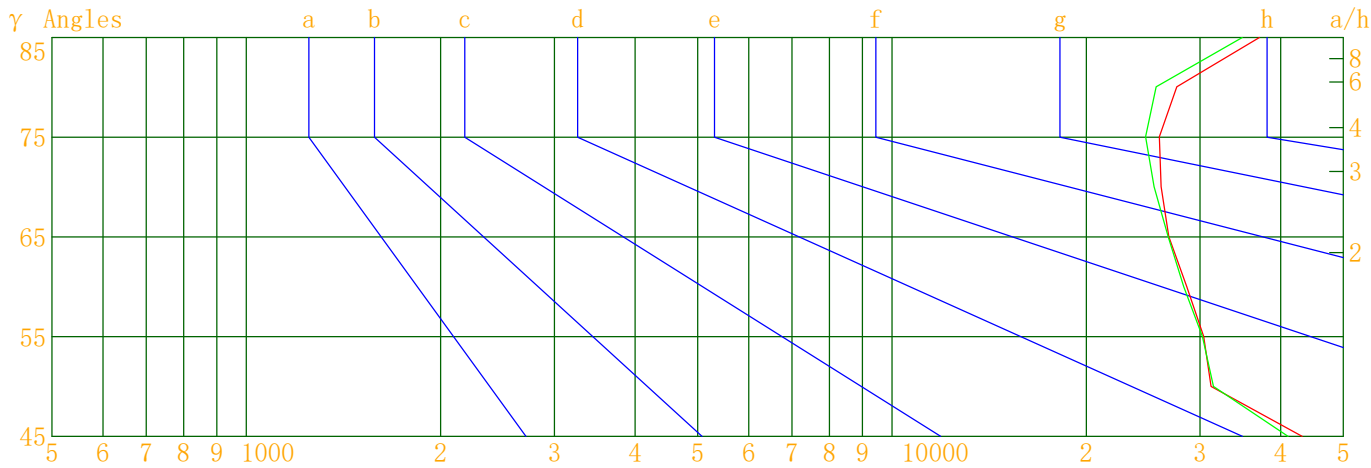
Glare Grade Table

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	43167	31208	30385	28602	26834	26114	25949	27611	37080
C90	41068	31464	30250	28297	26773	25457	24706	25657	34882

Luminance Limiting Curve



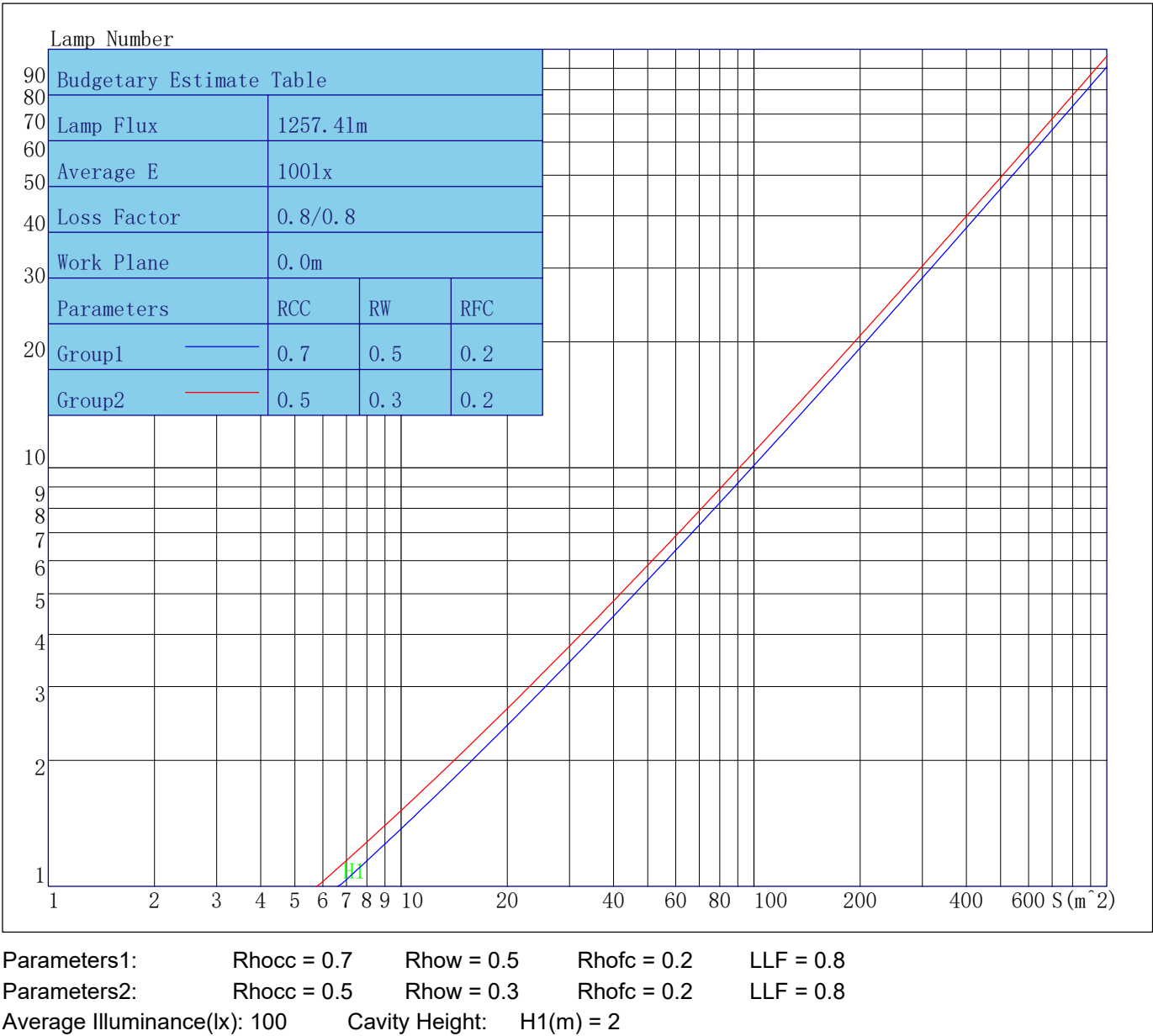
Luminous Size:Length(m)=-0.055Width(m)=-0.055Height(m)=0.000Area(m^2)=0.002376

Luminous Type:Without Luminous Side

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

Indoor Budgetary Estimate Table

Lum. Name:DL51-15-XX-01 2700K RA90 60D	Lum. Catalog:	Test ID:01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/08



Indoor Coefficient of Utilization Table

Lum. Name:DL51-15-XX-01 2700K RA90 60D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/08

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	110	110	110	104	104	104	100	100	100	97
1	112	109	106	104	109	106	104	102	102	100	98	98	96	95	94	93	91	89
2	106	100	96	92	103	99	94	91	95	91	89	91	89	86	88	86	84	82
3	100	93	88	83	98	91	87	83	88	84	81	86	82	79	83	80	78	76
4	95	87	81	76	93	85	80	76	83	78	74	80	76	73	78	75	72	70
5	90	81	75	70	88	80	74	70	78	73	69	76	71	68	74	70	67	65
6	85	76	69	65	83	75	69	64	73	68	64	71	67	63	70	66	63	61
7	81	71	65	60	79	70	64	60	69	63	60	67	62	59	66	62	58	57
8	77	67	61	56	75	66	60	56	65	59	56	63	59	55	62	58	55	53
9	73	63	57	53	72	62	57	53	61	56	52	60	55	52	59	55	52	50
10	70	60	54	50	68	59	53	49	58	53	49	57	52	49	56	52	49	47

Unified Glare Rating Table

Lum. Name: DL51-15-XX-01 2700K RA90 60D	Lum. Catelog:	Test ID: 01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/08

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	22.4	23.4	22.8	23.8	24.2	22.1	23.1	22.5	23.5	23.9
	Y=3H	22.9	23.8	23.3	24.2	24.6	22.6	23.5	23.1	23.9	24.4
	Y=4H	23.2	24.1	23.7	24.5	24.9	22.9	23.8	23.4	24.2	24.6
	Y=6H	23.5	24.3	24.0	24.7	25.2	23.2	24.0	23.7	24.4	24.9
	Y=8H	23.7	24.4	24.1	24.8	25.3	23.4	24.1	23.8	24.5	25.0
	Y=12H	23.8	24.5	24.3	25.0	25.5	23.5	24.2	24.0	24.7	25.2
X=4H	Y=2H	22.5	23.3	22.9	23.7	24.2	22.2	23.0	22.6	23.4	23.9
	Y=3H	23.2	23.9	23.7	24.3	24.8	22.9	23.6	23.4	24.1	24.6
	Y=4H	23.6	24.2	24.1	24.7	25.2	23.4	24.0	23.9	24.5	25.0
	Y=6H	24.1	24.6	24.6	25.1	25.7	23.8	24.4	24.3	24.9	25.4
	Y=8H	24.3	24.8	24.8	25.3	25.9	24.0	24.6	24.6	25.1	25.6
	Y=12H	24.6	25.0	25.1	25.6	26.1	24.3	24.7	24.8	25.3	25.8
X=8H	Y=4H	23.7	24.3	24.3	24.8	25.3	23.5	24.0	24.0	24.5	25.1
	Y=6H	24.4	24.8	24.9	25.3	25.9	24.1	24.5	24.7	25.1	25.7
	Y=8H	24.7	25.1	25.3	25.7	26.2	24.5	24.8	25.0	25.4	26.0
	Y=12H	25.1	25.5	25.7	26.0	26.6	24.9	25.2	25.4	25.7	26.4
X=12H	Y=4H	23.7	24.2	24.3	24.7	25.3	23.5	24.0	24.1	24.5	25.0
	Y=6H	24.4	24.8	25.0	25.3	25.9	24.2	24.6	24.8	25.1	25.7
	Y=8H	24.8	25.2	25.4	25.7	26.3	24.6	24.9	25.2	25.5	26.1
Variations with the objverver position at spacings											
S=1.0H		0.2/-0.2					0.3/-0.3				
S=1.5H		0.5/-0.5					0.5/-0.6				
S=2.0H		0.6/-0.7					0.7/-0.7				
Reduced UGR Table:											
Nordic Standard Table:		BK0					BK0				
Correction Value		2.0					2.1				

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

IES Indoor Report

Photometric Filename:DL51-15-XX-01 2700K RA90 60D.IES

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Candela Tabulation

V/H	C0.0	C90.0	C180.0	C270.0
γ 0.0	1320.63	1320.63	1320.63	1320.63
γ 5.0	1261.45	1262.17	1283.13	1282.19
γ 10.0	1205.61	1212.65	1205.26	1209.67
γ 15.0	1162.87	1171.21	1137.81	1150.41
γ 20.0	1087.17	1083.72	1036.99	1058.77
γ 25.0	940.30	915.74	872.43	909.99
γ 30.0	714.04	678.00	661.47	705.05
γ 35.0	330.30	285.73	340.56	359.03
γ 40.0	114.15	105.90	112.10	114.82
γ 45.0	72.52	68.99	69.44	70.17
γ 50.0	47.66	48.05	43.30	43.02
γ 55.0	41.41	41.22	38.36	38.24
γ 60.0	33.98	33.61	33.65	34.08
γ 65.0	26.94	26.88	28.53	28.89
γ 70.0	21.22	20.69	23.40	23.09
γ 75.0	15.96	15.19	17.69	17.43
γ 80.0	11.39	10.59	12.93	12.51
γ 85.0	7.68	7.22	8.79	8.51
γ 90.0	4.94	4.68	5.67	5.32
γ 95.0	4.72	4.59	4.63	4.65
γ 100.0	4.18	4.00	4.15	4.25
γ 105.0	3.79	3.66	4.11	4.24
γ 110.0	4.11	3.54	4.04	3.81
γ 115.0	4.02	3.96	3.81	3.95
γ 120.0	4.33	4.19	3.95	4.28
γ 125.0	4.57	4.38	4.36	5.08
γ 130.0	5.06	5.33	5.14	5.59
γ 135.0	6.07	6.20	5.88	6.04
γ 140.0	6.48	6.79	6.37	6.67
γ 145.0	7.03	7.32	7.40	7.37
γ 150.0	7.98	7.79	7.99	7.95
γ 155.0	8.28	8.47	8.64	8.71
γ 160.0	9.04	8.80	8.88	9.06
γ 165.0	9.40	9.57	9.34	9.68
γ 170.0	10.12	9.99	9.96	9.82
γ 175.0	10.31	10.45	10.32	10.11
γ 180.0	10.46	10.46	10.46	10.46