

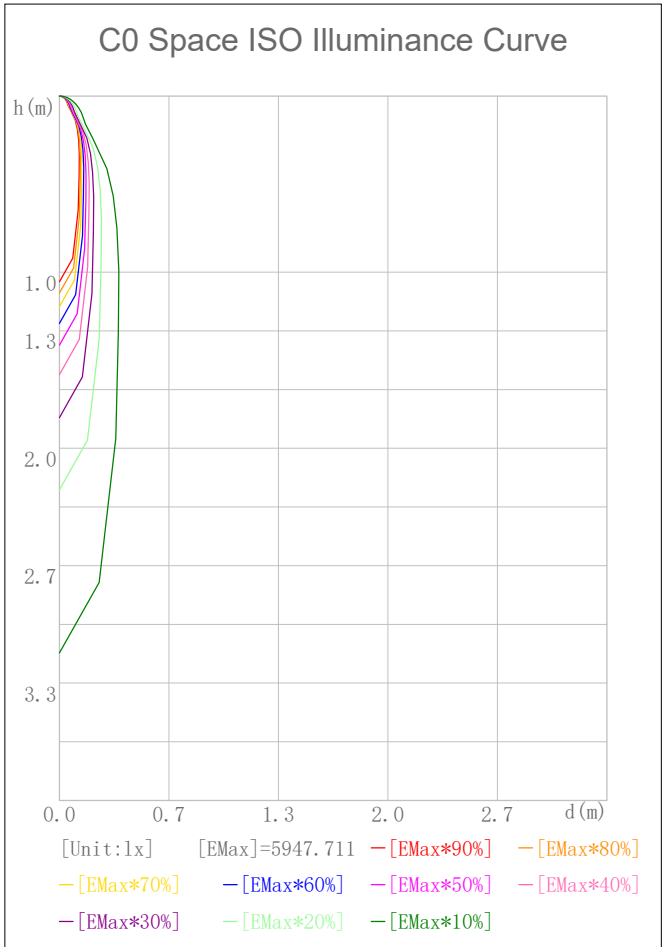
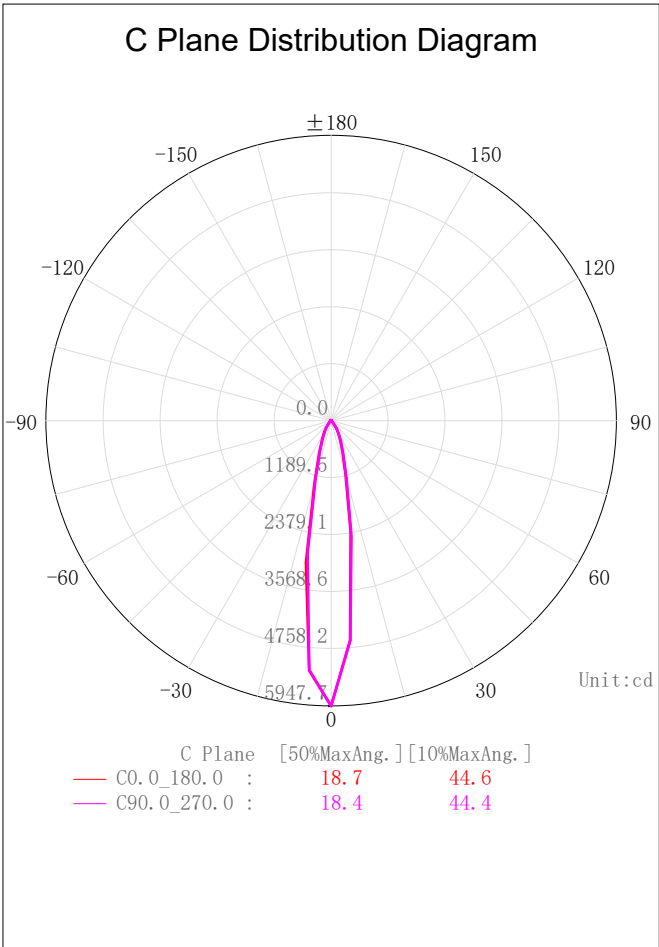
Indoor Luminaire Photometric Data

Description Information

Luminary Name: DL51-15-XX-01 2700K RA90 15D		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

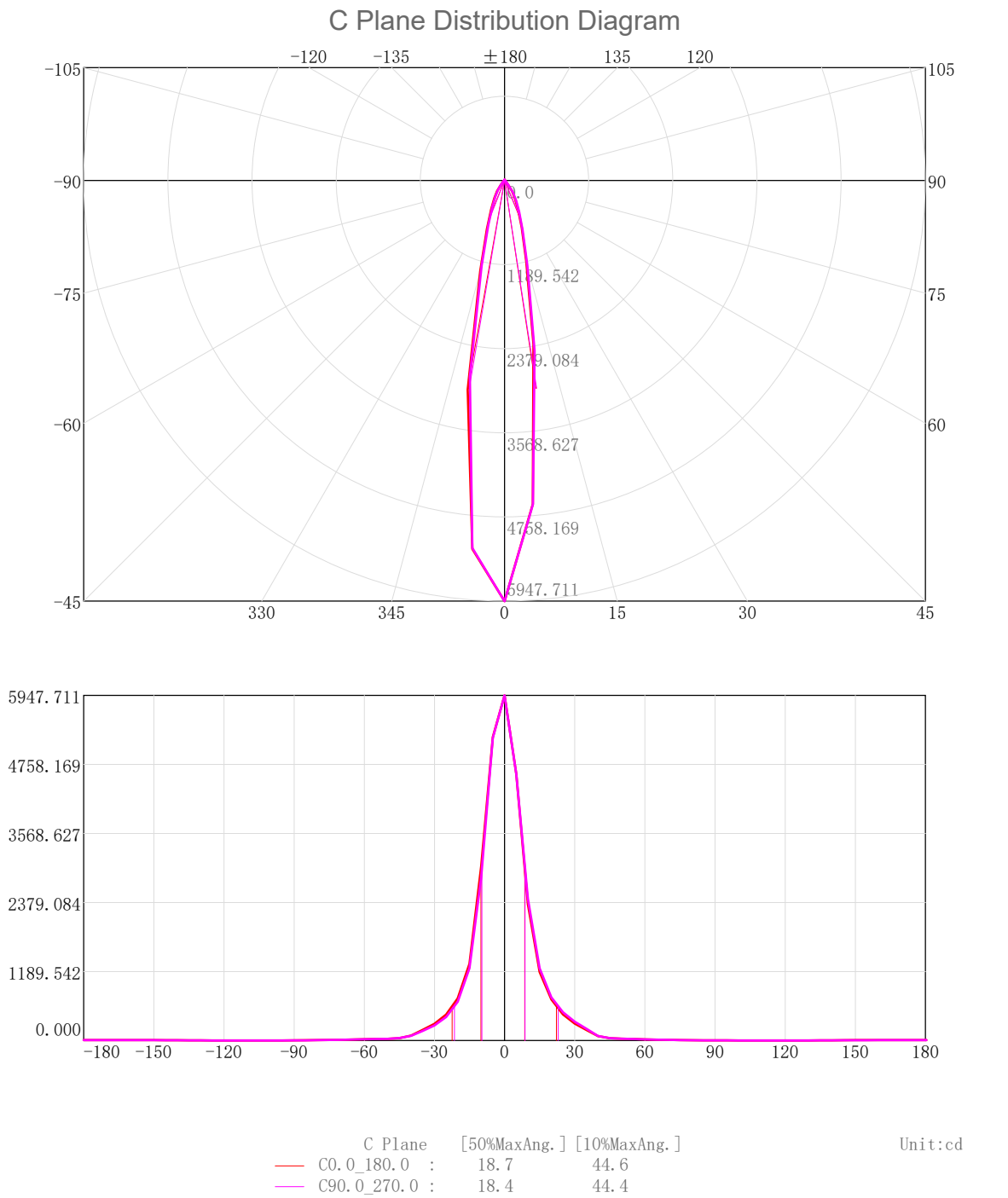
Character Parameter

Lamp Speciality Parameter		Luminaire Speciality Parameter	
Rated Flux(lm): 1249.880	Luminary Flux(lm): 1249.882	Field Angle(10%Imax): 44.6(°)	
Rated Power(W):	Luminary Efficiency: 100.00%	Down Lumens&Percent: 1222.554lm 97.81%	
Rated Voltage(V):	Luminary EER(lm/W): 88.581	Up Lumens&Percent: 27.328lm 2.19%	
Tested Power(W): 14.110	Max. Candela(cd): 5947.711	S/MH: C0_a180=0.320 C90_270=0.316	
Lamps' Inside: 1	Max Cand@Ang. (°): C=0.0 γ=0.0	CIE Type: Semi-Direct	
Tested Electrics (V, A, pf):239.9, 0.060, 0.970	Beam Angle(50%Imax): 18.7(°)	ErP Φ use(90°): 1156.725lm	
Lamp Size (W*L*H):0.055m*0.055m*0.000m	Left=-10.1°, Right=8.6°	IRF(%): 1063.714	



2D Plane Light Intensity Distribution Curve

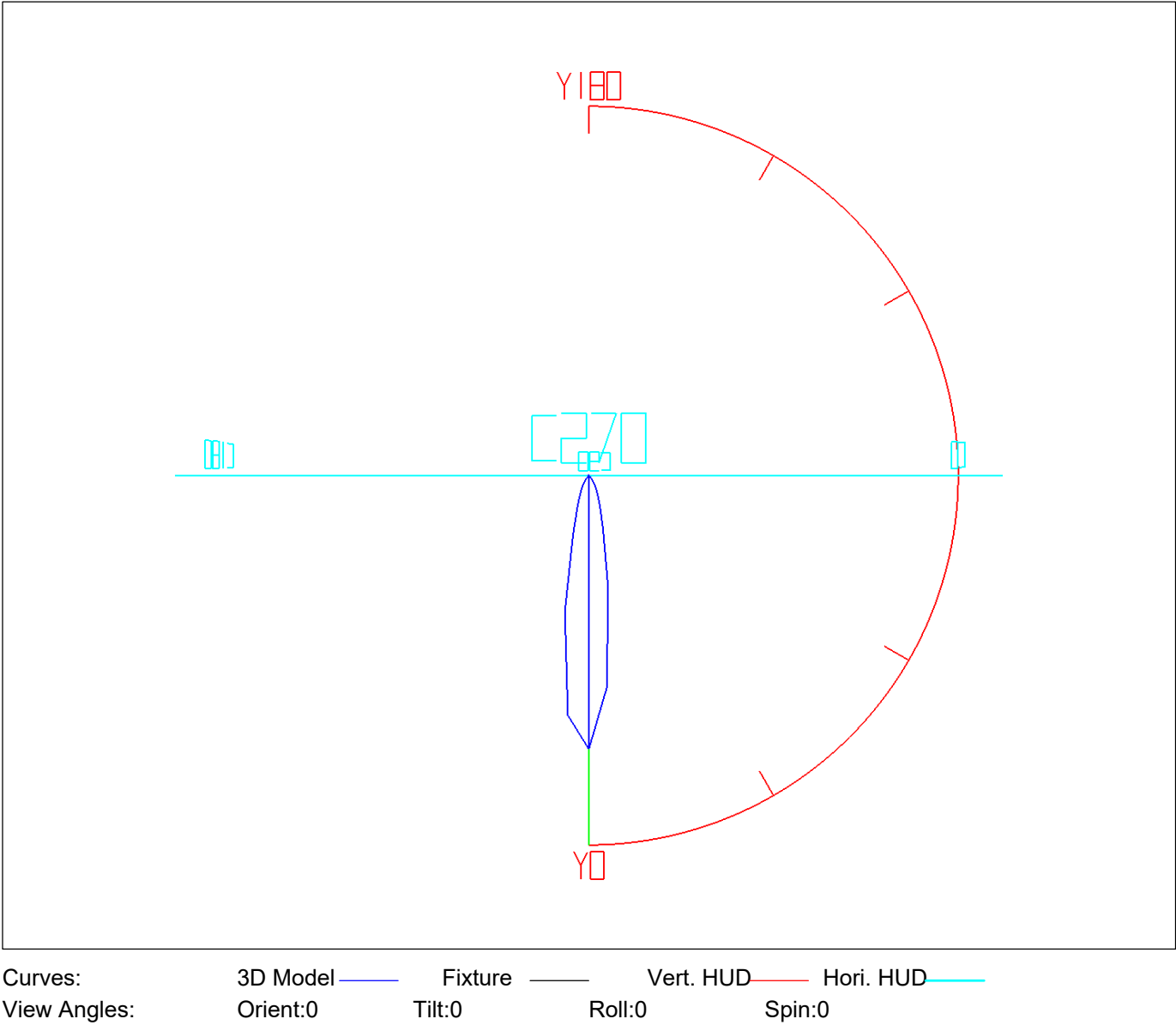
Lum. Name:DL51-15-XX-01 2700K RA90 15D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/08



3D Light Intensity Distribution Modal

Lum. Name:DL51-15-XX-01 2700K RA90 15D	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

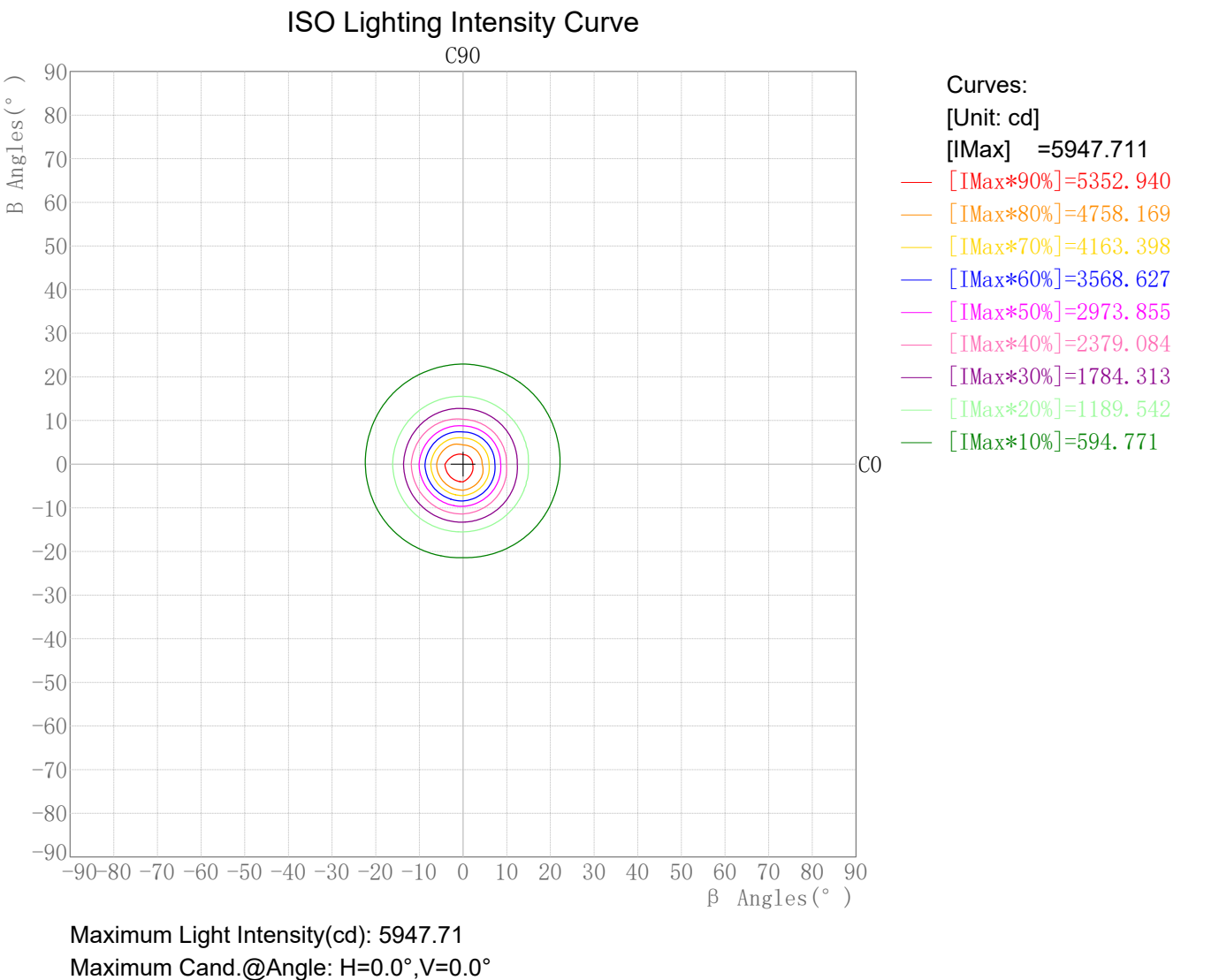


Zonal Flux Tabulation

Zone( γ )	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0. 0-5. 0	129. 77	129. 77	10. 38	10. 38
5. 0-10. 0	270. 49	400. 26	21. 64	32. 02
10. 0-15. 0	231. 58	631. 84	18. 53	50. 55
15. 0-20. 0	161. 79	793. 63	12. 94	63. 50
20. 0-25. 0	121. 88	915. 51	9. 75	73. 25
25. 0-30. 0	93. 83	1009. 34	7. 51	80. 76
30. 0-35. 0	70. 25	1079. 59	5. 62	86. 38
35. 0-40. 0	44. 44	1124. 03	3. 56	89. 93
40. 0-45. 0	23. 06	1147. 09	1. 84	91. 78
45. 0-50. 0	15. 17	1162. 26	1. 21	92. 99
50. 0-55. 0	12. 99	1175. 25	1. 04	94. 03
55. 0-60. 0	11. 55	1186. 80	0. 92	94. 95
60. 0-65. 0	9. 85	1196. 65	0. 79	95. 74
65. 0-70. 0	8. 11	1204. 77	0. 65	96. 39
70. 0-75. 0	6. 47	1211. 23	0. 52	96. 91
75. 0-80. 0	5. 02	1216. 25	0. 40	97. 31
80. 0-85. 0	3. 70	1219. 95	0. 30	97. 61
85. 0-90. 0	2. 61	1222. 55	0. 21	97. 81
90. 0-95. 0	2. 01	1224. 57	0. 16	97. 97
95. 0-100. 0	1. 77	1226. 34	0. 14	98. 12
100. 0-105. 0	1. 57	1227. 91	0. 13	98. 24
105. 0-110. 0	1. 45	1229. 36	0. 12	98. 36
110. 0-115. 0	1. 40	1230. 76	0. 11	98. 47
115. 0-120. 0	1. 33	1232. 10	0. 11	98. 58
120. 0-125. 0	1. 30	1233. 40	0. 10	98. 68
125. 0-130. 0	1. 37	1234. 76	0. 11	98. 79
130. 0-135. 0	1. 55	1236. 31	0. 12	98. 91
135. 0-140. 0	1. 81	1238. 12	0. 15	99. 06
140. 0-145. 0	2. 06	1240. 18	0. 16	99. 22
145. 0-150. 0	2. 21	1242. 40	0. 18	99. 40
150. 0-155. 0	2. 13	1244. 53	0. 17	99. 57
155. 0-160. 0	1. 85	1246. 38	0. 15	99. 72
160. 0-165. 0	1. 51	1247. 89	0. 12	99. 84
165. 0-170. 0	1. 11	1249. 00	0. 09	99. 93
170. 0-175. 0	0. 66	1249. 66	0. 05	99. 98
175. 0-180. 0	0. 22	1249. 88	0. 02	100. 00

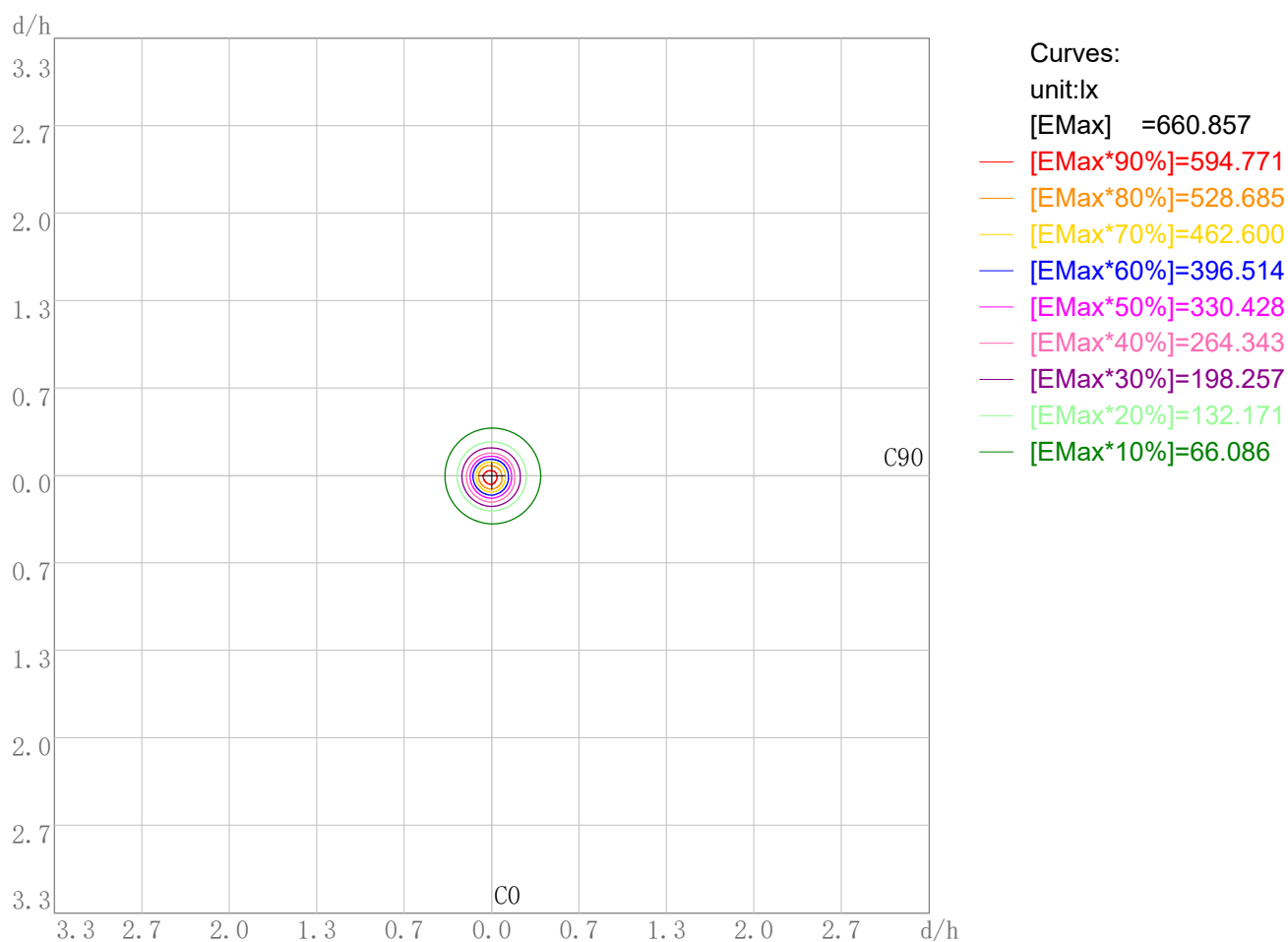
Rectangle ISO Lighting Intensity Diagram

Lum. Name:DL51-15-XX-01 2700K RA90 15D	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



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

Lum. Name: DL51-15-XX-01 2700K RA90 15D	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

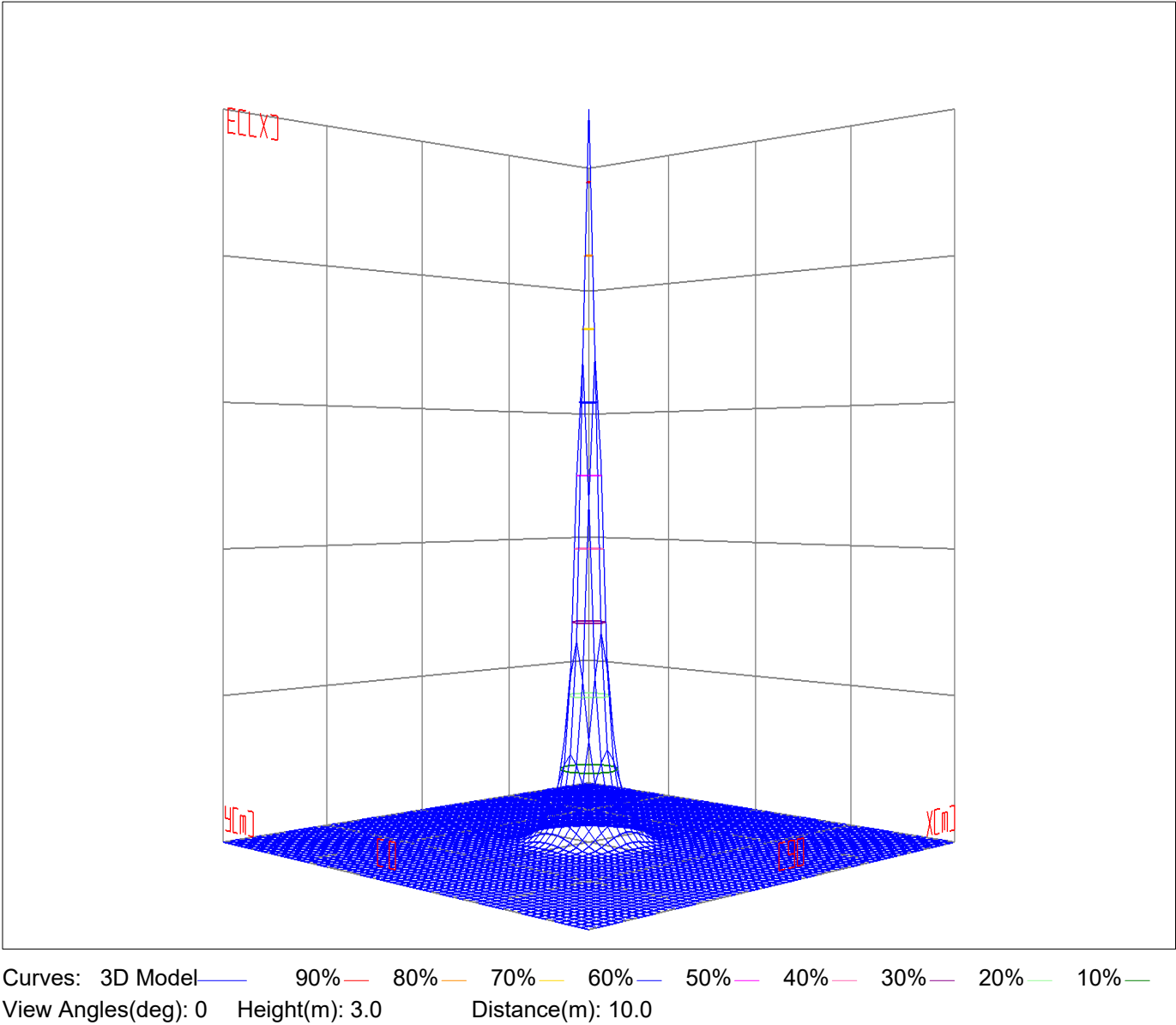


Working Plane Luminaire Mounting Height(m): 3.00  
Working Plane Maximum Illuminance(lx): 660.86  
Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

3D Plane ISO Illuminance Diagram

Lum. Name: DL51-15-XX-01 2700K RA90 15D	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

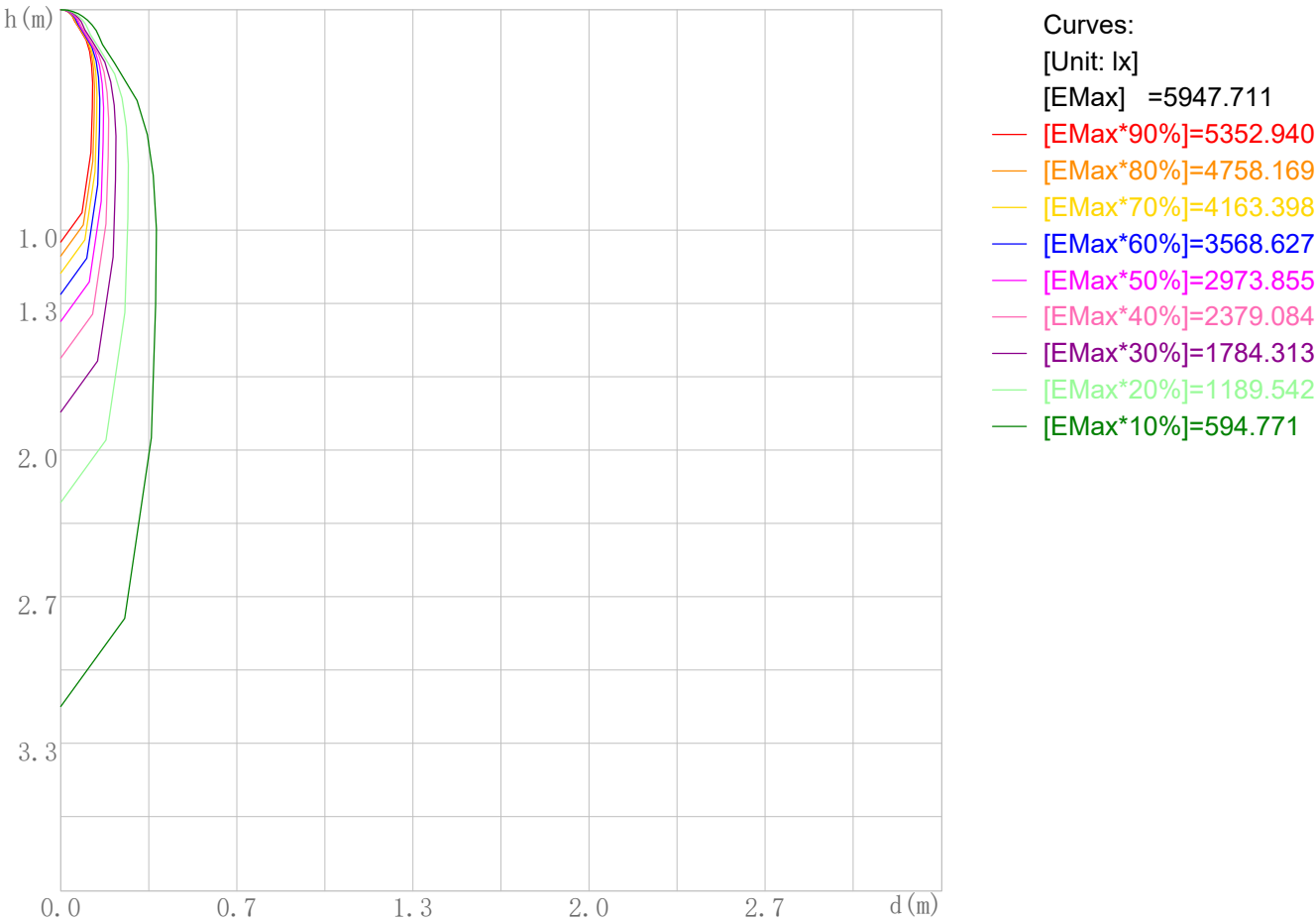
3D Plane Illuminance Modal



Space ISO Illuminance Diagram

Lum. Name: DL51-15-XX-01 2700K RA90 15D	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

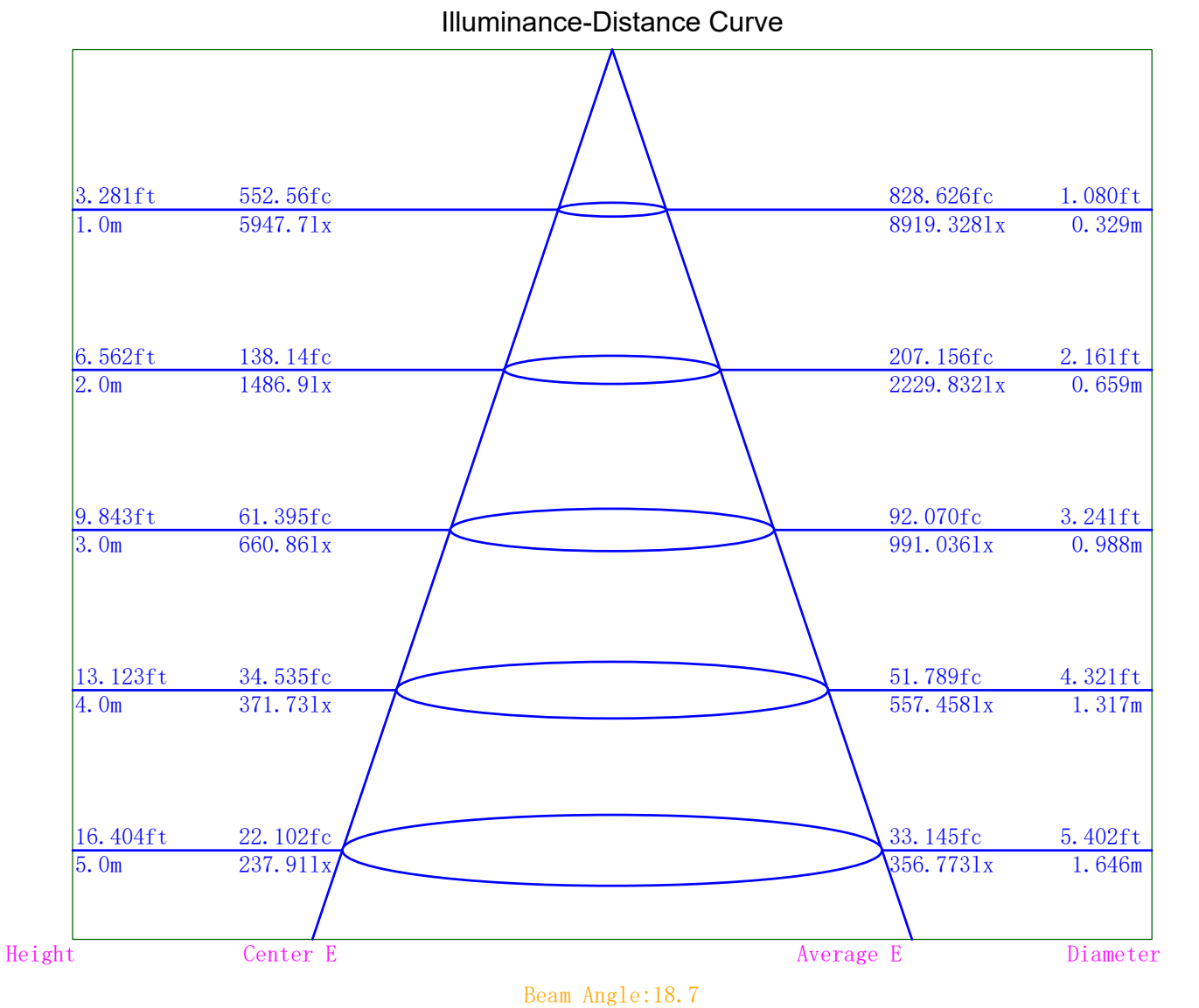


Space Plane Maximum Illuminance and @Angle:5947.71lx,0.0deg  
Plane Maximum Lighting Intensity and @Angle:5947.711cd,0deg



Illuminance-Distance Diagram

Lum. Name:DL51-15-XX-01 2700K RA90 15D	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 15D	Lum. Catalog:Lum. Catalog: LED	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

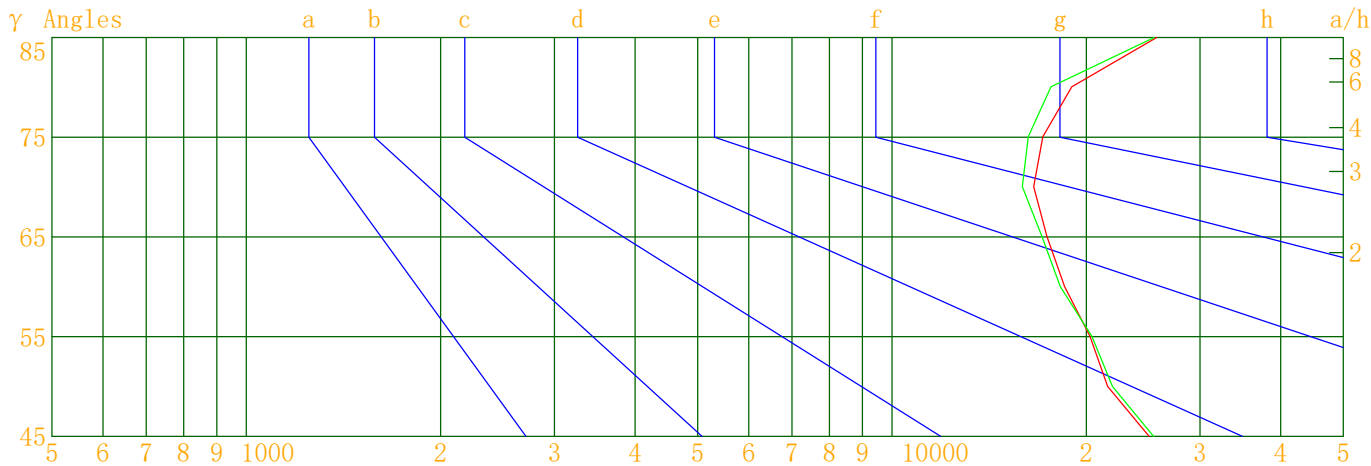
Glare Grade Table

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	25017	21581	20264	18507	17380	16577	17121	18991	25692
C90	25421	21951	20408	18219	17073	15917	16259	17634	25480

Luminance Limiting Curve



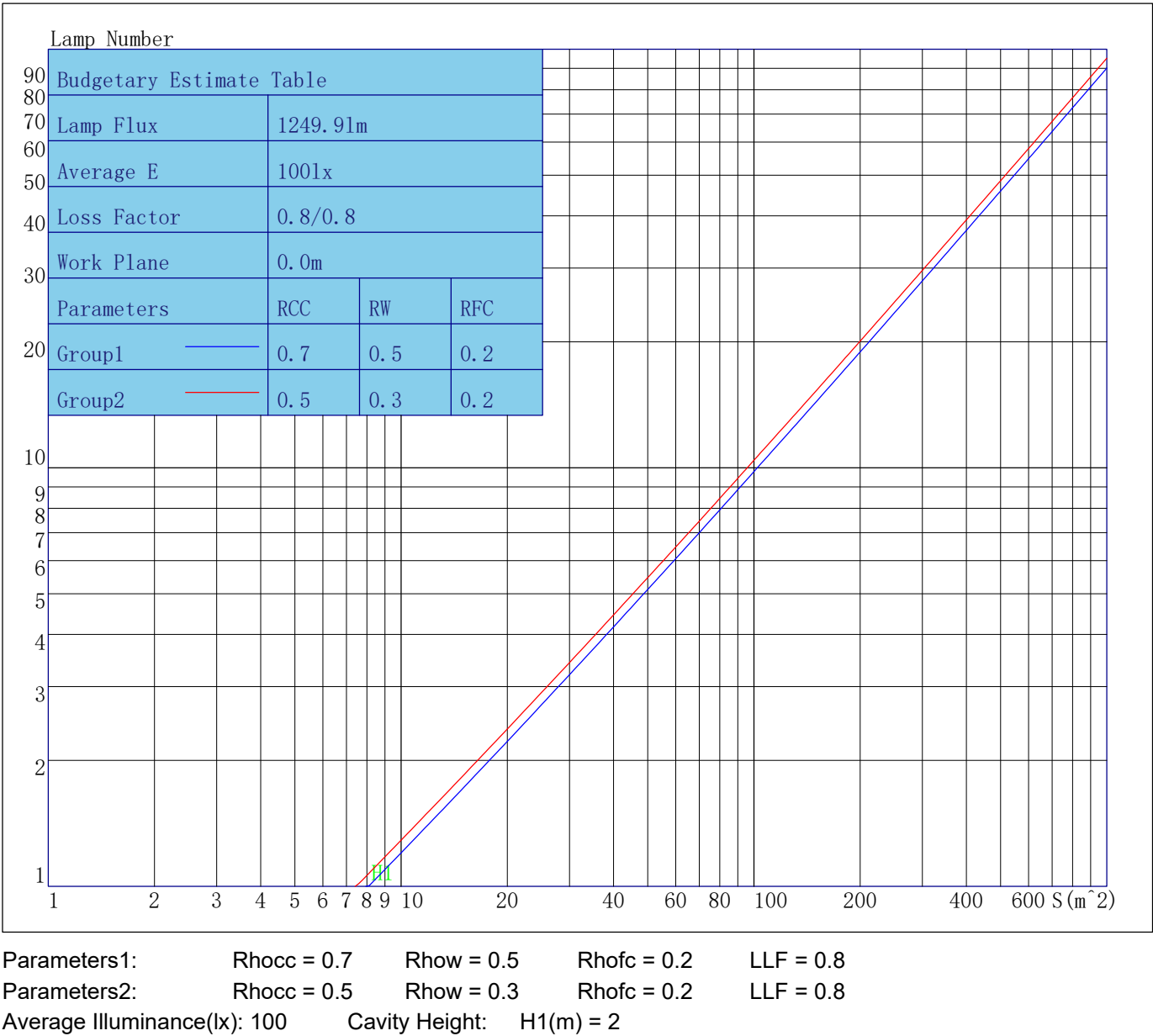
Luminous Size:Length(m)=-0.055Width(m)=-0.055Height(m)=0.000Area(m^2)=0.002376

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 15D	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 15D	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	119	119	119	119	116	116	116	116	110	110	110	105	105	105	100	100	100	98
1	113	111	109	106	111	108	106	105	104	102	101	100	99	98	96	95	94	93
2	109	104	101	98	106	102	99	96	99	96	94	96	94	92	93	91	89	88
3	104	99	94	91	102	97	93	90	94	91	88	92	89	87	89	87	85	84
4	100	94	89	85	98	93	88	85	90	87	84	88	85	82	86	83	81	80
5	97	89	85	81	95	88	84	80	87	83	80	85	81	79	83	80	78	77
6	93	86	81	77	92	85	80	77	83	79	76	82	78	75	80	77	75	74
7	90	82	77	74	89	82	77	74	80	76	73	79	75	73	78	74	72	71
8	87	79	74	71	86	79	74	71	77	73	70	76	73	70	75	72	70	68
9	84	76	72	68	83	76	71	68	75	71	68	74	70	68	73	70	67	66
10	82	74	69	66	81	73	69	66	73	68	66	72	68	65	71	68	65	64

Unified Glare Rating Table

Lum. Name: DL51-15-XX-01 2700K RA90 15D	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	18.6	19.5	19.0	19.9	20.3	18.9	19.8	19.3	20.2	20.6
	19.3	20.1	19.7	20.5	20.9	19.4	20.3	19.9	20.7	21.1
	19.7	20.4	20.1	20.8	21.3	19.8	20.6	20.2	21.0	21.4
	20.1	20.8	20.5	21.2	21.7	20.1	20.8	20.6	21.3	21.7
	20.3	21.0	20.8	21.4	21.9	20.3	21.0	20.8	21.4	21.9
	20.5	21.2	21.0	21.6	22.1	20.5	21.2	21.0	21.6	22.1
X=4H    Y=2H	18.8	19.5	19.2	19.9	20.4	19.0	19.8	19.4	20.2	20.6
	19.7	20.3	20.1	20.8	21.2	19.8	20.4	20.2	20.9	21.3
	20.2	20.8	20.7	21.2	21.7	20.3	20.8	20.7	21.3	21.8
	20.8	21.3	21.3	21.8	22.3	20.8	21.3	21.3	21.8	22.3
	21.1	21.6	21.6	22.1	22.6	21.1	21.5	21.6	22.0	22.5
	21.4	21.8	22.0	22.4	22.9	21.4	21.8	21.9	22.3	22.8
X=8H    Y=4H	20.4	20.8	20.9	21.3	21.9	20.4	20.9	20.9	21.4	21.9
	21.2	21.5	21.7	22.1	22.6	21.1	21.5	21.7	22.0	22.6
	21.6	21.9	22.2	22.5	23.0	21.5	21.9	22.1	22.4	23.0
	22.1	22.4	22.7	22.9	23.6	22.0	22.3	22.6	22.8	23.5
X=12H    Y=4H	20.4	20.8	20.9	21.3	21.8	20.4	20.8	21.0	21.4	21.9
	21.2	21.6	21.8	22.1	22.7	21.2	21.5	21.8	22.0	22.6
	21.8	22.0	22.3	22.6	23.2	21.7	22.0	22.3	22.5	23.1
Variations with the objverver position at spacings										
S=1.0H	0.2/-0.2					0.3/-0.3				
S=1.5H	0.4/-0.5					0.4/-0.5				
S=2.0H	0.5/-0.6					0.6/-0.6				
Reduced UGR Table:										
Nordic Standard Table:	BK0					BK0				
Correction Value	2.5					2.3				

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 15D.IES

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Candela Tabulation

V/H	C0.0	C90.0	C180.0	C270.0
γ 0.0	5947.71	5947.71	5947.71	5947.71
γ 5.0	4590.86	4594.68	5228.93	5215.13
γ 10.0	2351.91	2443.88	3003.51	2816.37
γ 15.0	1182.85	1245.10	1323.28	1249.00
γ 20.0	708.83	745.83	728.21	669.39
γ 25.0	450.56	490.06	449.12	406.38
γ 30.0	294.74	326.41	288.53	259.86
γ 35.0	183.74	204.12	184.72	166.12
γ 40.0	77.61	80.30	87.48	81.31
γ 45.0	42.03	42.71	43.10	43.63
γ 50.0	32.96	33.52	30.88	31.53
γ 55.0	27.61	27.81	27.18	27.38
γ 60.0	21.99	21.64	22.85	23.38
γ 65.0	17.45	17.14	18.60	19.10
γ 70.0	13.47	12.93	14.74	14.75
γ 75.0	10.53	10.00	11.29	11.23
γ 80.0	7.84	7.28	8.46	8.39
γ 85.0	5.32	5.28	6.12	5.78
γ 90.0	3.75	3.79	4.05	3.99
γ 95.0	3.64	3.59	3.29	3.30
γ 100.0	3.28	3.28	2.81	2.93
γ 105.0	2.94	2.92	2.77	2.52
γ 110.0	2.77	2.71	2.75	2.84
γ 115.0	2.90	2.58	3.06	2.56
γ 120.0	2.67	2.58	2.94	2.66
γ 125.0	2.73	2.54	3.23	3.15
γ 130.0	3.19	3.14	3.60	3.60
γ 135.0	4.33	4.00	4.19	4.56
γ 140.0	5.26	4.98	5.88	5.98
γ 145.0	6.76	6.21	7.24	7.01
γ 150.0	8.41	7.44	8.54	8.51
γ 155.0	8.77	8.18	9.01	8.60
γ 160.0	9.12	8.74	9.10	9.04
γ 165.0	9.35	9.33	9.48	9.12
γ 170.0	9.59	9.29	9.39	9.42
γ 175.0	8.89	9.26	9.21	9.20
γ 180.0	9.06	9.06	9.06	9.06