

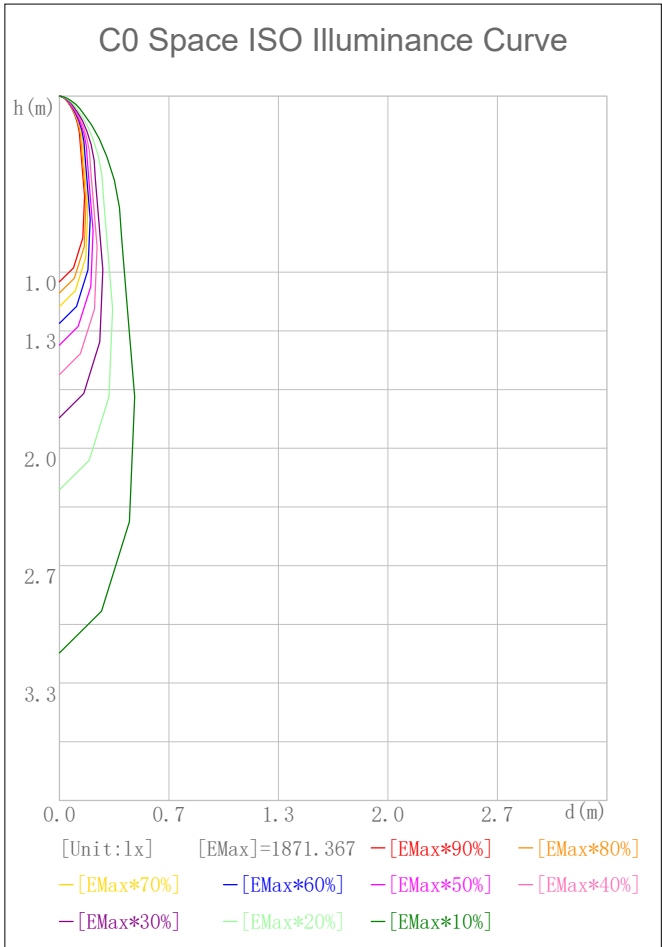
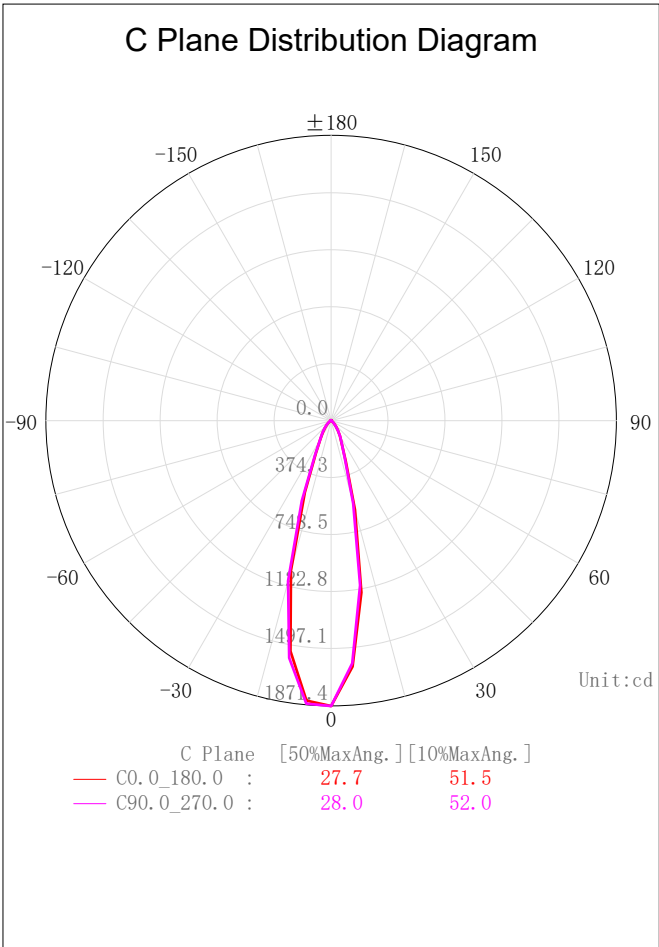
Indoor Luminaire Photometric Data

Description Information

Luminary Name: TR09-09-DW-02 1800-3000K RA90 24D		Lum. Catalog:	Test ID: 01
Lamp Name:		Lamp Catalog: LED	Test Date: 2022/08/18
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):0.039m*0.039m*0.000m		Lum. Area (m2):0.001	Lum. W (kg): 0.000
Test System: C, γ	Test Step: C=90.0 γ=5.0	Temp. (°C): 25	Humidity(%):

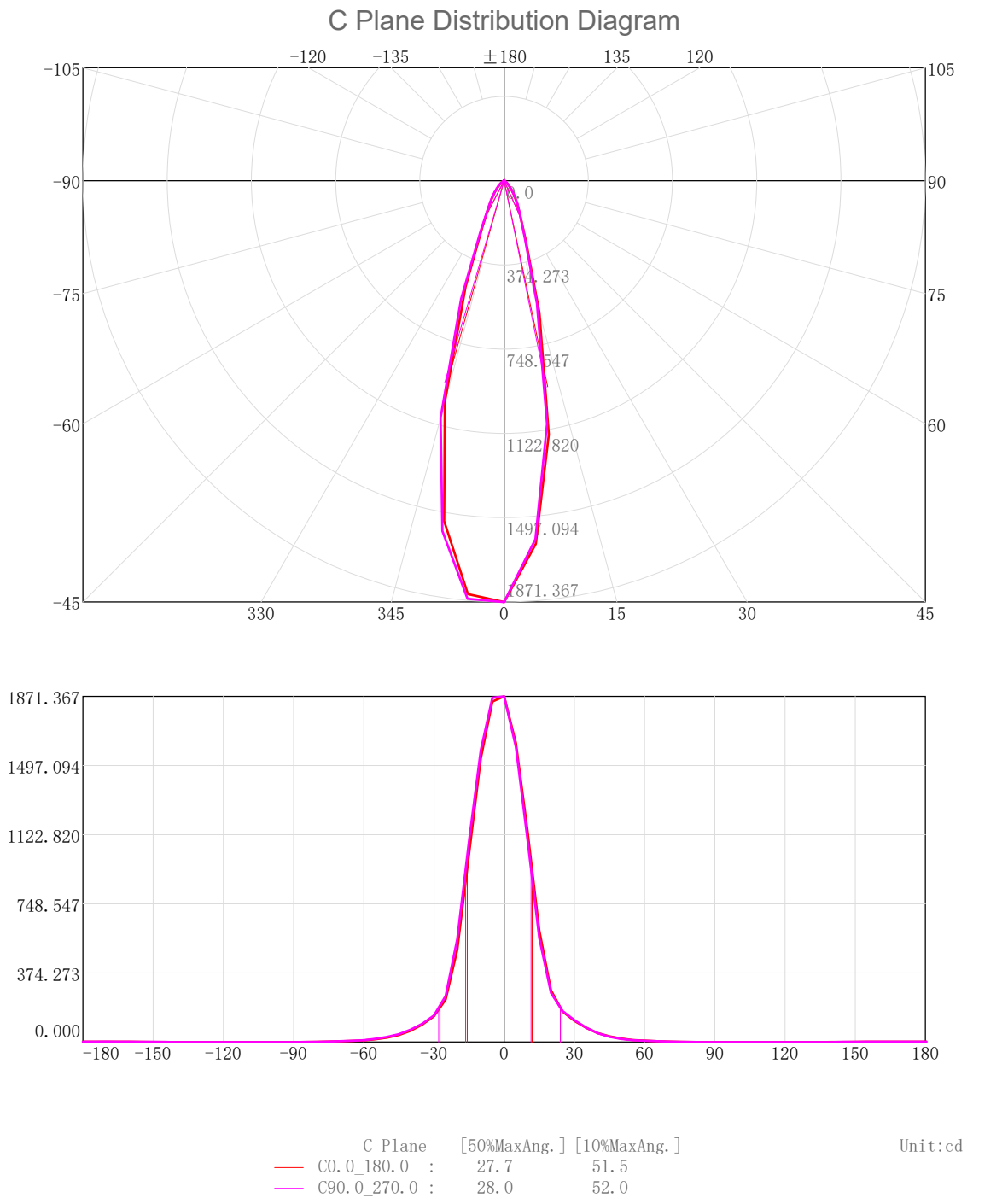
Character Parameter

Lamp Speciality Parameter		Luminaire Speciality Parameter	
Rated Flux(lm): 596.190	Luminary Flux(lm): 596.193	Field Angle(10%Imax): 51.5(°)	
Rated Power(W):	Luminary Efficiency: 100.00%	Down Lumens&Percent: 593.992lm 99.63%	
Rated Voltage(V):	Luminary EER(lm/W): 72.021	Up Lumens&Percent: 2.201lm 0.37%	
Tested Power(W): 8.278	Max. Candela(cd): 1871.367	S/MH: C0_a180=0.467 C90_270=0.471	
Lamps' Inside: 1	Max Cand@Ang. (°): C=0.0 γ=0.0	CIE Type: Semi-Direct	
Tested Electrics (V, A, pf):239.9, 0.038, 0.891	Beam Angle(50%Imax): 27.7(°)	ErP Φ use(90°): 556.004lm	
Lamp Size (W*L*H):0.039m*0.039m*0.000m	Left=-15.8°, Right=11.9°	IRF(%): 749.825	



2D Plane Light Intensity Distribution Curve

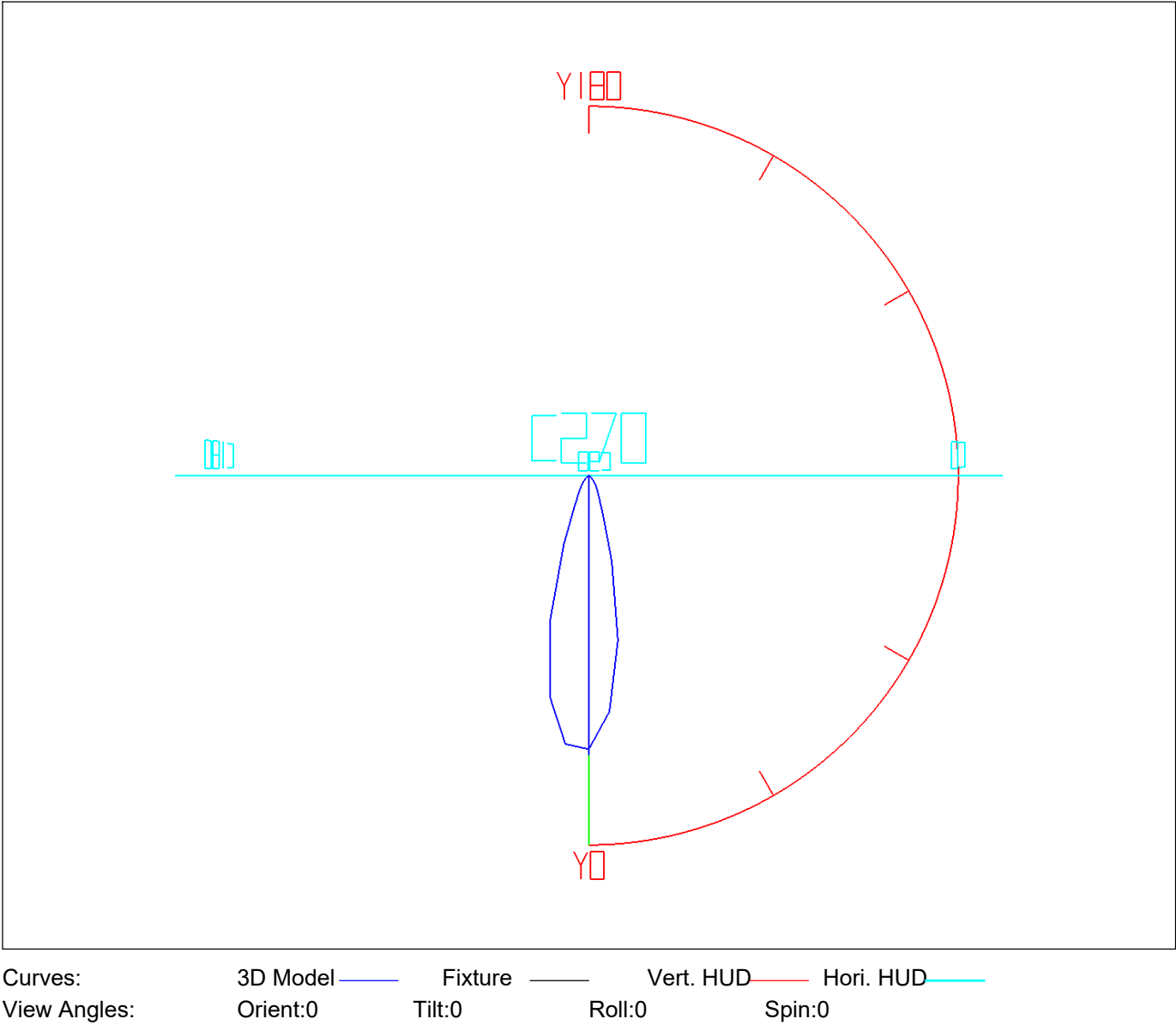
Lum. Name:TR09-09-DW-02 1800-3000K RA90 24D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/18



3D Light Intensity Distribution Modal

Lum. Name:TR09-09-DW-02 1800-3000K RA90 24D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/18

3D Light Intensity Distribution Modal

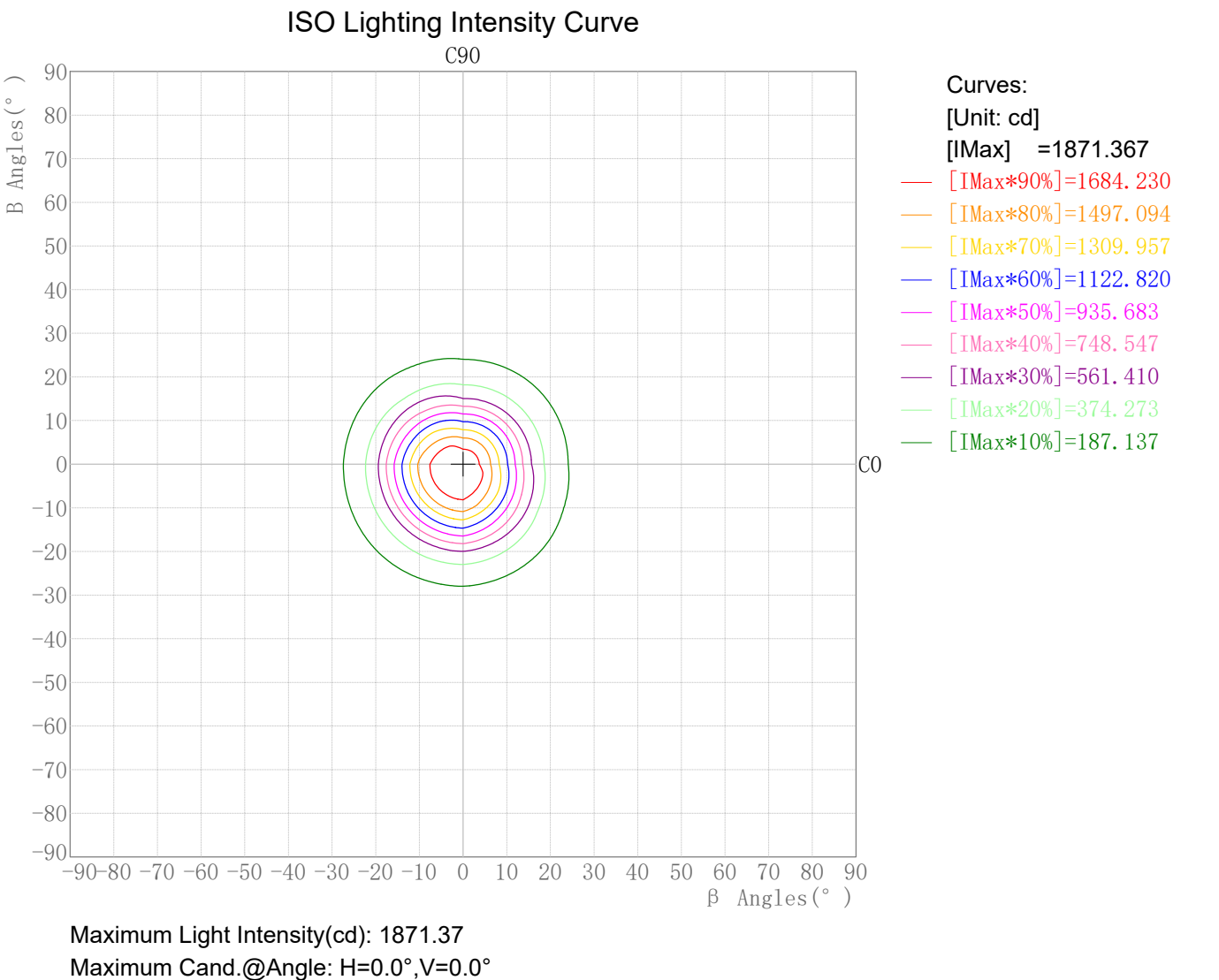


Zonal Flux Tabulation

Zone(γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0. 0-5. 0	43. 06	43. 06	7. 22	7. 22
5. 0-10. 0	109. 82	152. 88	18. 42	25. 64
10. 0-15. 0	128. 01	280. 89	21. 47	47. 11
15. 0-20. 0	100. 58	381. 47	16. 87	63. 98
20. 0-25. 0	63. 49	444. 96	10. 65	74. 63
25. 0-30. 0	42. 22	487. 17	7. 08	81. 71
30. 0-35. 0	31. 96	519. 14	5. 36	87. 08
35. 0-40. 0	24. 00	543. 14	4. 03	91. 10
40. 0-45. 0	17. 03	560. 17	2. 86	93. 96
45. 0-50. 0	11. 69	571. 86	1. 96	95. 92
50. 0-55. 0	7. 82	579. 68	1. 31	97. 23
55. 0-60. 0	5. 14	584. 82	0. 86	98. 09
60. 0-65. 0	3. 55	588. 37	0. 60	98. 69
65. 0-70. 0	2. 53	590. 89	0. 42	99. 11
70. 0-75. 0	1. 66	592. 55	0. 28	99. 39
75. 0-80. 0	0. 96	593. 52	0. 16	99. 55
80. 0-85. 0	0. 40	593. 92	0. 07	99. 62
85. 0-90. 0	0. 07	593. 99	0. 01	99. 63
90. 0-95. 0	0. 00	593. 99	0. 00	99. 63
95. 0-100. 0	0. 00	593. 99	0. 00	99. 63
100. 0-105. 0	0. 00	593. 99	0. 00	99. 63
105. 0-110. 0	0. 00	593. 99	0. 00	99. 63
110. 0-115. 0	0. 00	593. 99	0. 00	99. 63
115. 0-120. 0	0. 00	593. 99	0. 00	99. 63
120. 0-125. 0	0. 00	593. 99	0. 00	99. 63
125. 0-130. 0	0. 00	593. 99	0. 00	99. 63
130. 0-135. 0	0. 00	593. 99	0. 00	99. 63
135. 0-140. 0	0. 04	594. 03	0. 01	99. 64
140. 0-145. 0	0. 18	594. 21	0. 03	99. 67
145. 0-150. 0	0. 34	594. 55	0. 06	99. 72
150. 0-155. 0	0. 40	594. 95	0. 07	99. 79
155. 0-160. 0	0. 40	595. 35	0. 07	99. 86
160. 0-165. 0	0. 36	595. 70	0. 06	99. 92
165. 0-170. 0	0. 27	595. 98	0. 05	99. 96
170. 0-175. 0	0. 16	596. 14	0. 03	99. 99
175. 0-180. 0	0. 05	596. 19	0. 01	100. 00

Rectangle ISO Lighting Intensity Diagram

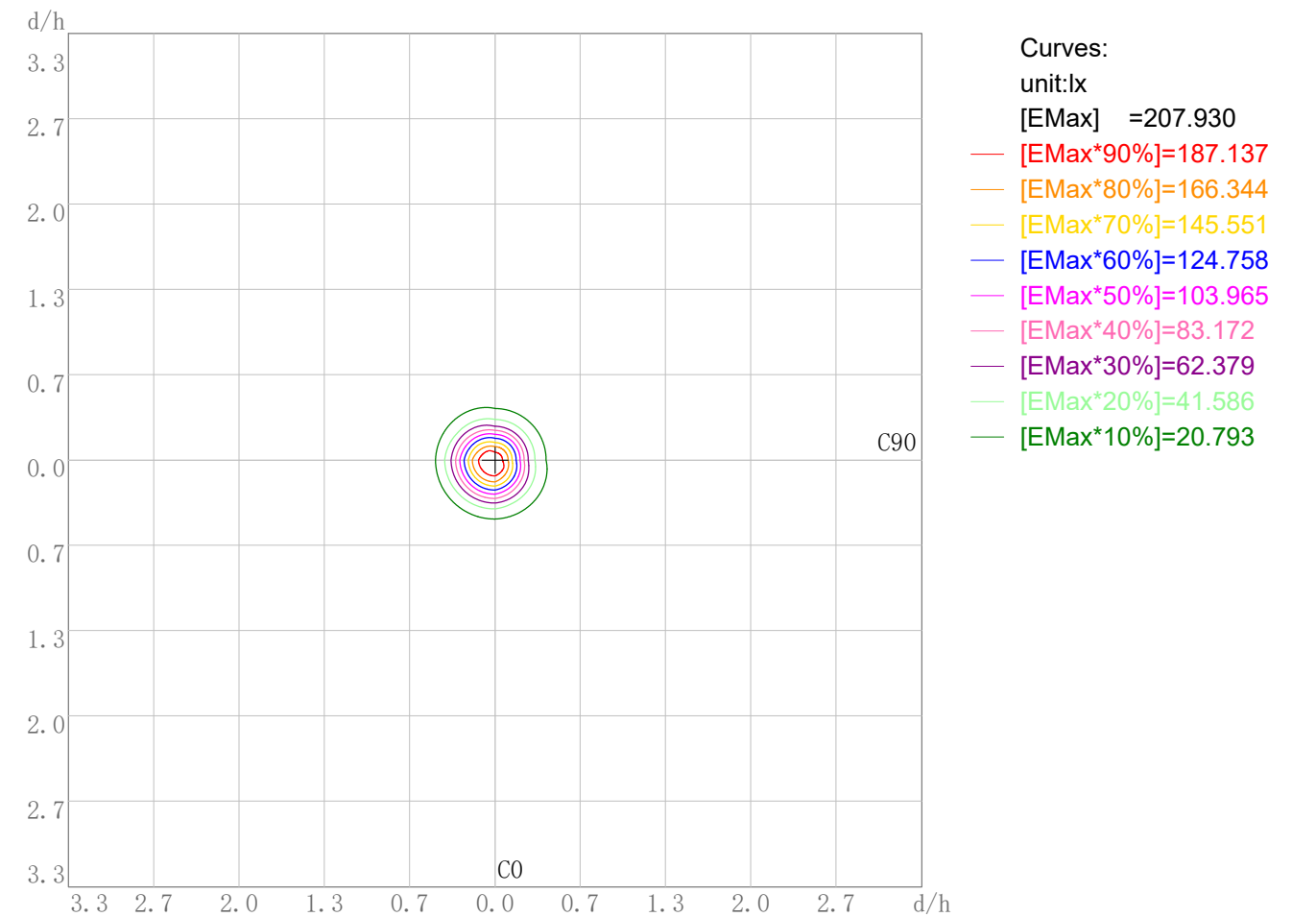
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Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/18



Plane ISO-Illuminance Diagram

Lum. Name:TR09-09-DW-02 1800-3000K RA90 24D	Lum. Catalog:	Test ID:01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/18

Plane ISO-Illuminance Curve

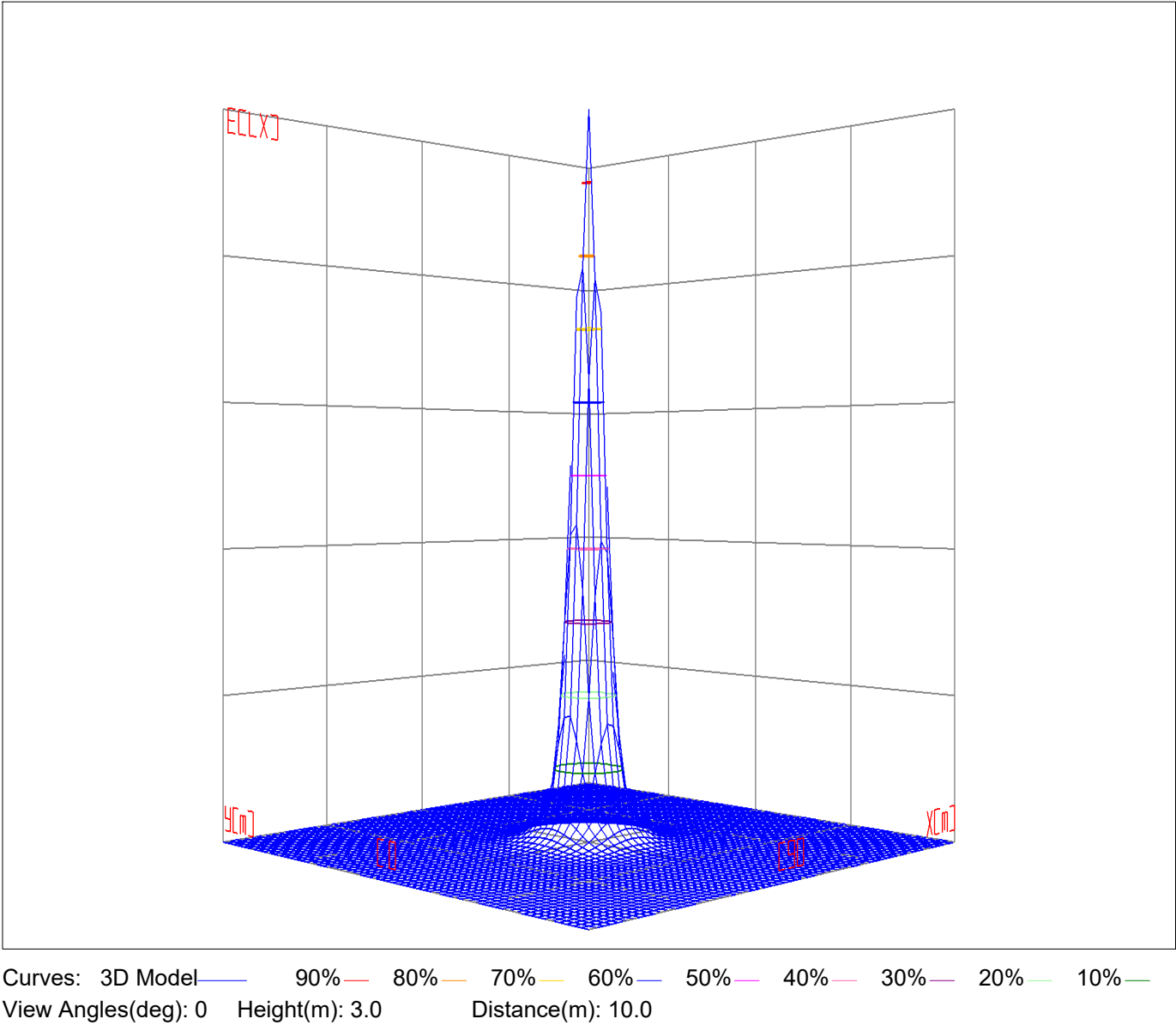


Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 207.93
Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

3D Plane ISO Illuminance Diagram

Lum. Name: TR09-09-DW-02 1800-3000K RA90 24D	Lum. Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/18

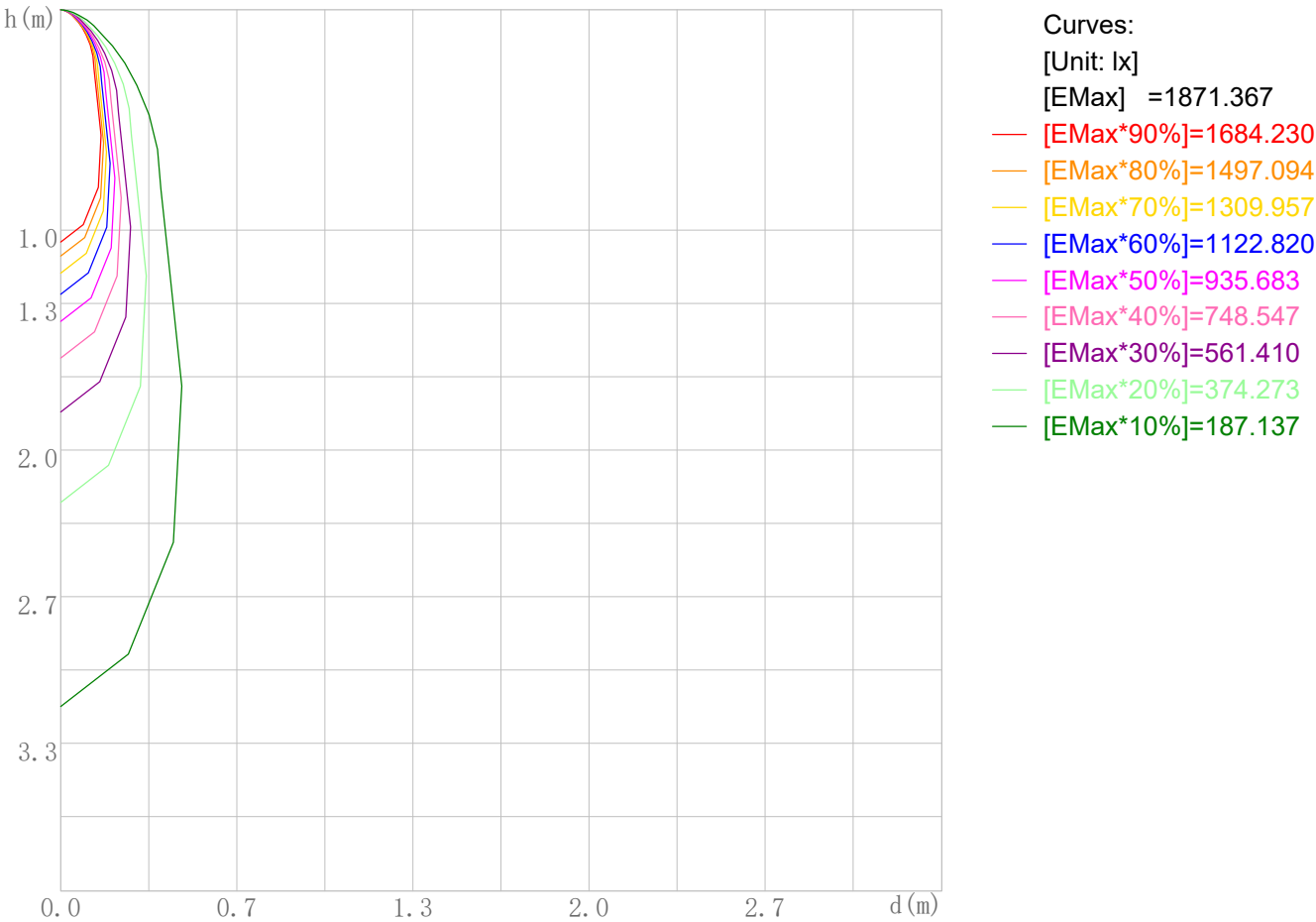
3D Plane Illuminance Modal



Space ISO Illuminance Diagram

Lum. Name:TR09-09-DW-02 1800-3000K RA90 24D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/18

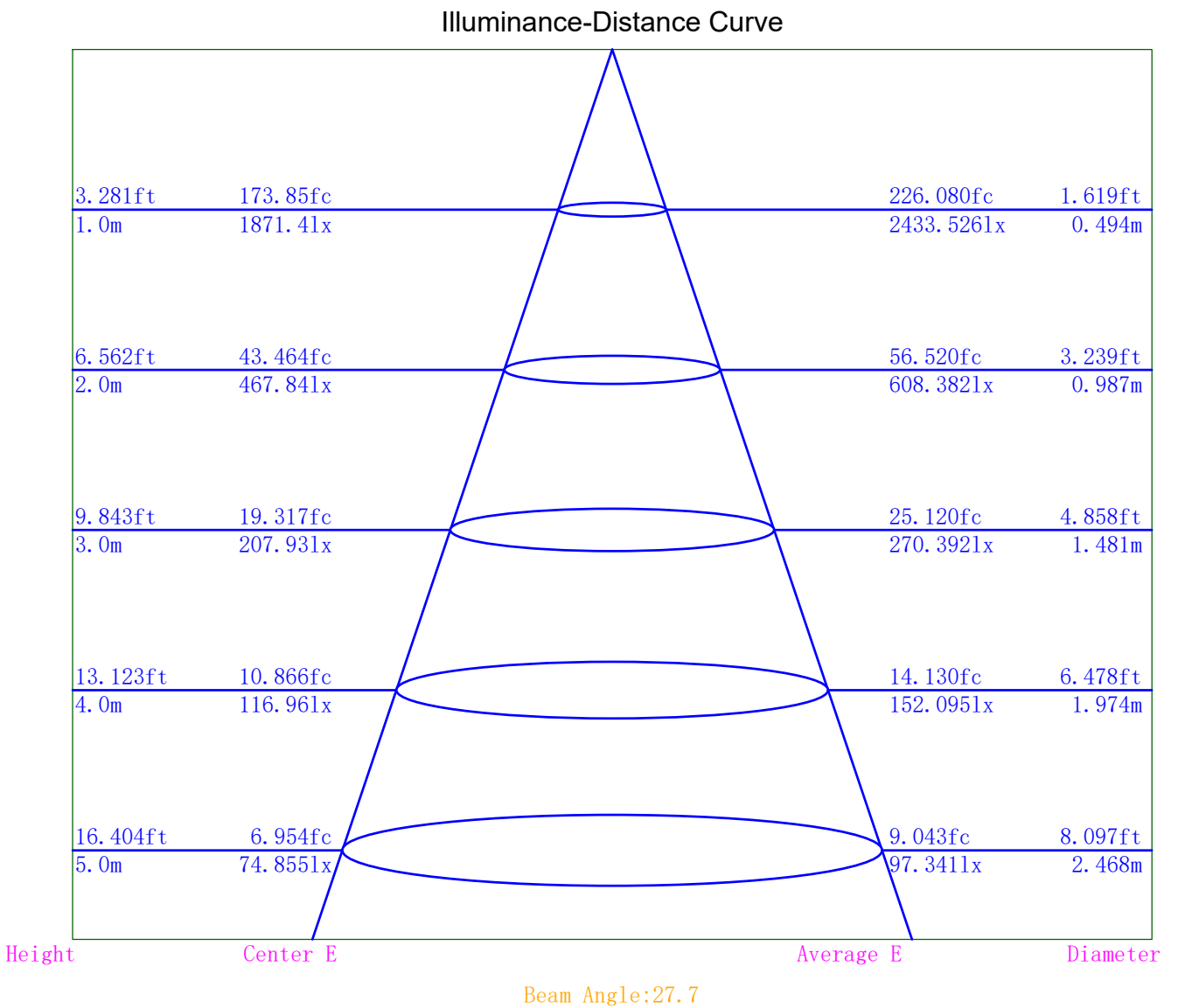
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:1871.37lx,0.0deg
Plane Maximum Lighting Intensity and @Angle:1871.367cd,0deg

Illuminance-Distance Diagram

Lum. Name:TR09-09-DW-02 1800-3000K RA90 24D	Lum. Catalog:	Test ID:01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/18



Indoor Luminance Limiting Curves

Lum. Name:TR09-09-DW-02 1800-3000K RA90 24D	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:2022/08/18

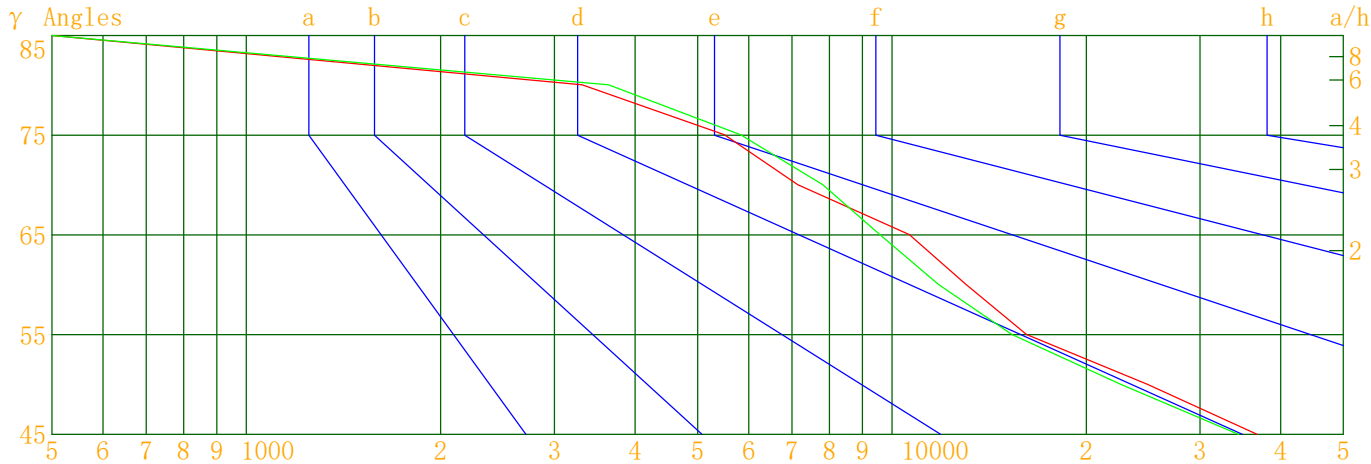
Glare Grade Table

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	36777	24891	16158	13025	10637	7144	5502	3312	0
C90	34429	22628	15336	11810	9577	7813	5828	3640	0

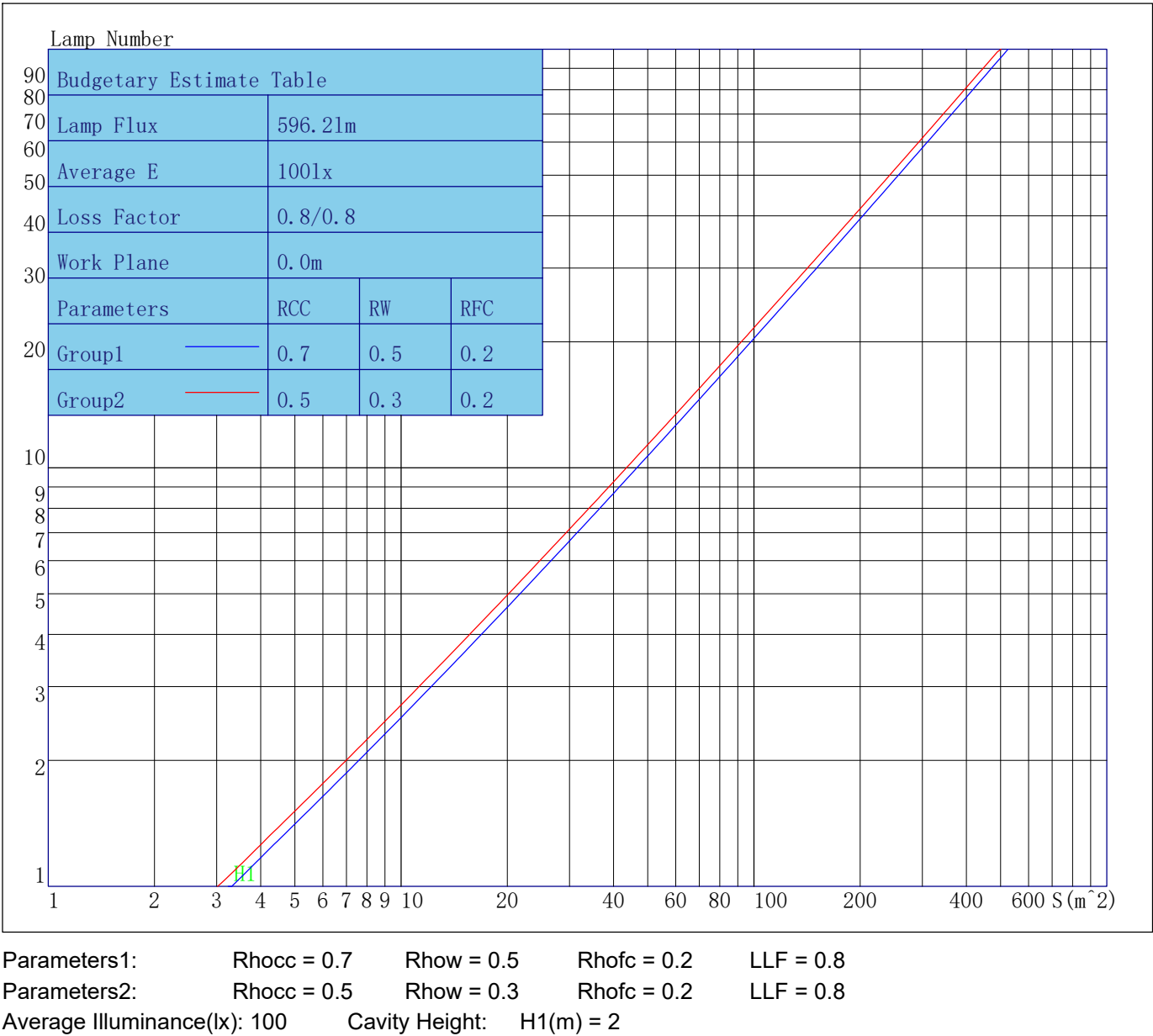
Luminance Limiting Curve



Luminous Size: Length(m)=-0.039 Width(m)=-0.039 Height(m)=0.000 Area(m^2)=0.001195
Luminous Type: Without Luminous Side
Luminous Curves: C0-C180 Color: C90-C270 Color:

Indoor Budgetary Estimate Table

Lum. Name:TR09-09-DW-02 1800-3000K RA90 24D	Lum. Catalog:	Test ID:01
Lamp Name:	Lamp Catalog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/18



Indoor Coefficient of Utilization Table

Lum. Name:TR09-09-DW-02 1800-3000K RA90 24D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/18

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	111	111	111	106	106	106	102	102	102	100
1	114	112	109	107	112	109	107	106	105	104	102	102	100	99	98	97	96	94
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	93	91	89
3	105	99	95	91	103	98	94	91	95	92	89	93	90	88	90	88	86	85
4	101	94	89	86	99	93	88	85	91	87	84	89	86	83	87	84	82	81
5	97	89	84	81	95	89	84	80	87	83	80	85	82	79	84	81	78	77
6	93	85	80	77	92	85	80	76	83	79	76	82	78	75	81	77	75	74
7	90	82	77	73	88	81	76	73	80	76	73	79	75	72	78	74	72	71
8	86	78	73	70	85	78	73	70	77	73	70	76	72	69	75	71	69	68
9	83	75	70	67	82	75	70	67	74	70	67	73	69	67	72	69	66	65
10	81	73	68	65	80	72	68	65	71	67	64	71	67	64	70	67	64	63

Unified Glare Rating Table

Lum. Name:TR09-09-DW-02 1800-3000K RA90 24D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/18

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	18.9	19.9	20.2	18.3	19.3	18.7	19.6	20.0
	18.7	19.6	19.1	19.9	20.3	18.4	19.3	18.8	19.6	20.0
	18.6	19.5	19.1	19.8	20.2	18.4	19.2	18.8	19.6	20.0
	18.6	19.3	19.0	19.7	20.1	18.4	19.1	18.8	19.5	19.9
	18.5	19.2	19.0	19.6	20.1	18.3	19.0	18.8	19.4	19.8
	18.5	19.2	18.9	19.6	20.0	18.3	18.9	18.7	19.3	19.8
X=4H Y=2H	18.5	19.4	19.0	19.7	20.1	18.3	19.1	18.7	19.4	19.8
	18.7	19.4	19.1	19.8	20.2	18.4	19.1	18.9	19.5	20.0
	18.7	19.3	19.2	19.7	20.2	18.5	19.1	18.9	19.5	20.0
	18.7	19.2	19.2	19.7	20.1	18.5	19.0	18.9	19.4	19.9
	18.6	19.1	19.1	19.6	20.0	18.4	18.9	18.9	19.3	19.8
	18.6	19.0	19.1	19.5	20.0	18.3	18.8	18.8	19.3	19.7
X=8H Y=4H	18.6	19.1	19.1	19.6	20.1	18.4	18.9	18.9	19.3	19.8
	18.6	19.0	19.1	19.5	20.0	18.4	18.8	18.9	19.3	19.8
	18.6	18.9	19.1	19.4	19.9	18.3	18.7	18.9	19.2	19.7
	18.5	18.8	19.0	19.3	19.9	18.3	18.6	18.8	19.1	19.7
X=12H Y=4H	18.6	19.0	19.1	19.5	20.0	18.3	18.8	18.8	19.3	19.7
	18.6	18.9	19.1	19.4	19.9	18.3	18.7	18.9	19.2	19.7
	18.5	18.8	19.1	19.3	19.9	18.3	18.6	18.8	19.1	19.7
Variations with the objerver position at spacings										
S=1.0H	0.9/-1.0					0.9/-1.1				
S=1.5H	1.6/-1.9					1.6/-1.9				
S=2.0H	2.4/-2.9					2.1/-2.8				
Reduced UGR Table:										
Nordic Standard Table:	BK0					BK0				
Correction Value	0.5					0.5				

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	1871.37	1871.37	1871.37	1871.37
γ 5.0	1619.03	1597.72	1843.34	1863.73
γ 10.0	1144.41	1096.34	1535.14	1579.51
γ 15.0	605.91	563.49	1017.26	1089.53
γ 20.0	280.49	266.13	500.36	558.70
γ 25.0	165.92	168.24	231.07	250.36
γ 30.0	115.72	118.91	139.76	144.37
γ 35.0	77.55	78.09	94.42	99.44
γ 40.0	49.14	48.29	61.27	67.22
γ 45.0	31.07	29.08	38.64	43.19
γ 50.0	19.11	17.38	24.68	28.21
γ 55.0	11.07	10.51	15.23	17.75
γ 60.0	7.78	7.05	8.99	10.56
γ 65.0	5.37	4.84	6.49	7.29
γ 70.0	2.92	3.19	4.53	5.26
γ 75.0	1.70	1.80	2.80	3.20
γ 80.0	0.69	0.75	1.70	1.76
γ 85.0	0.00	0.00	0.39	0.65
γ 90.0	0.00	0.00	0.00	0.00
γ 95.0	0.00	0.00	0.00	0.00
γ 100.0	0.00	0.00	0.00	0.00
γ 105.0	0.00	0.00	0.00	0.00
γ 110.0	0.00	0.00	0.00	0.00
γ 115.0	0.00	0.00	0.00	0.00
γ 120.0	0.00	0.00	0.00	0.00
γ 125.0	0.00	0.00	0.00	0.00
γ 130.0	0.00	0.00	0.00	0.00
γ 135.0	0.00	0.00	0.00	0.00
γ 140.0	0.37	0.22	0.12	0.06
γ 145.0	0.66	1.41	0.60	0.90
γ 150.0	1.67	1.64	1.05	1.32
γ 155.0	1.90	1.95	1.38	1.70
γ 160.0	2.00	2.12	2.12	2.01
γ 165.0	2.43	2.22	2.27	2.18
γ 170.0	2.11	2.27	2.29	2.62
γ 175.0	2.18	2.34	2.16	2.20
γ 180.0	2.33	2.33	2.33	2.33