

**Photometric Filename:TR08-09-DW-01 1800-3000K RA90 24D.IES**

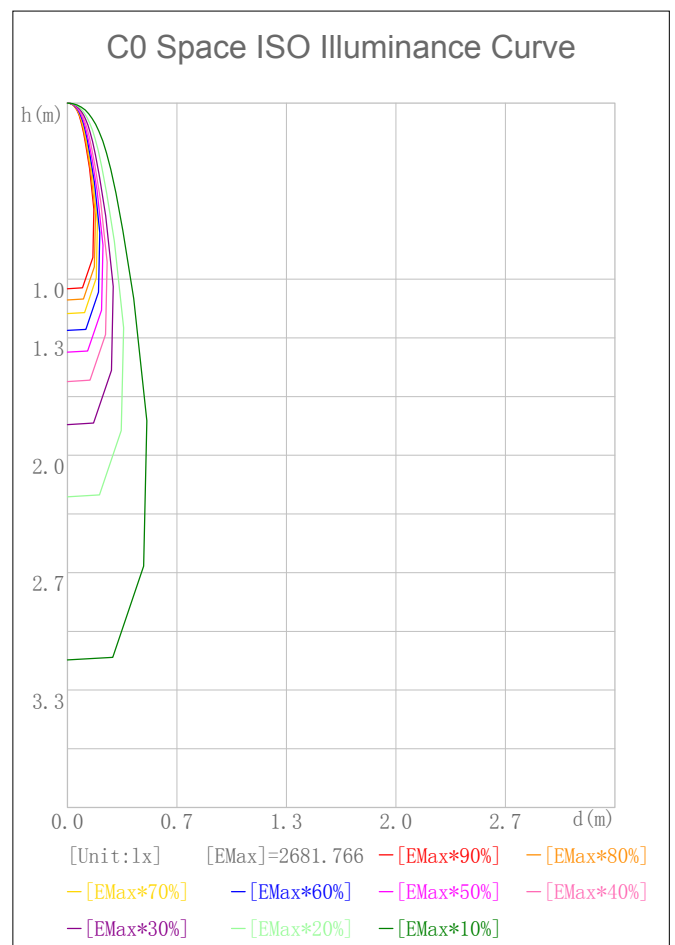
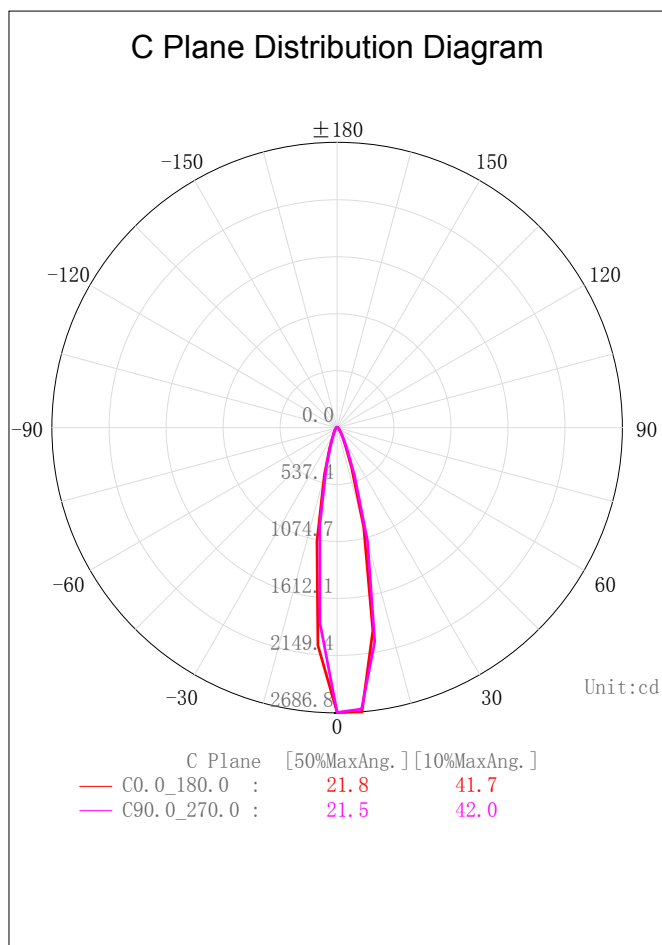
## Indoor Luminaire Photometric Data

### Description Information

Luminary Name:TR08-09-DW-01 1800-3000K RA90 24D		Lum. Catalog:	Test ID: 01
Lamp Name:		Lamp Catalog: LED	Test Date: 2022/08/29
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):0.076m*0.076m*0.000m		Lum. Area(m2):0.006	Lum. W(kg): 0.000
Test System: C, γ	Test Step: C=90.0 γ=5.0	Temp. (°C): 25	Humidity(%): 50.0

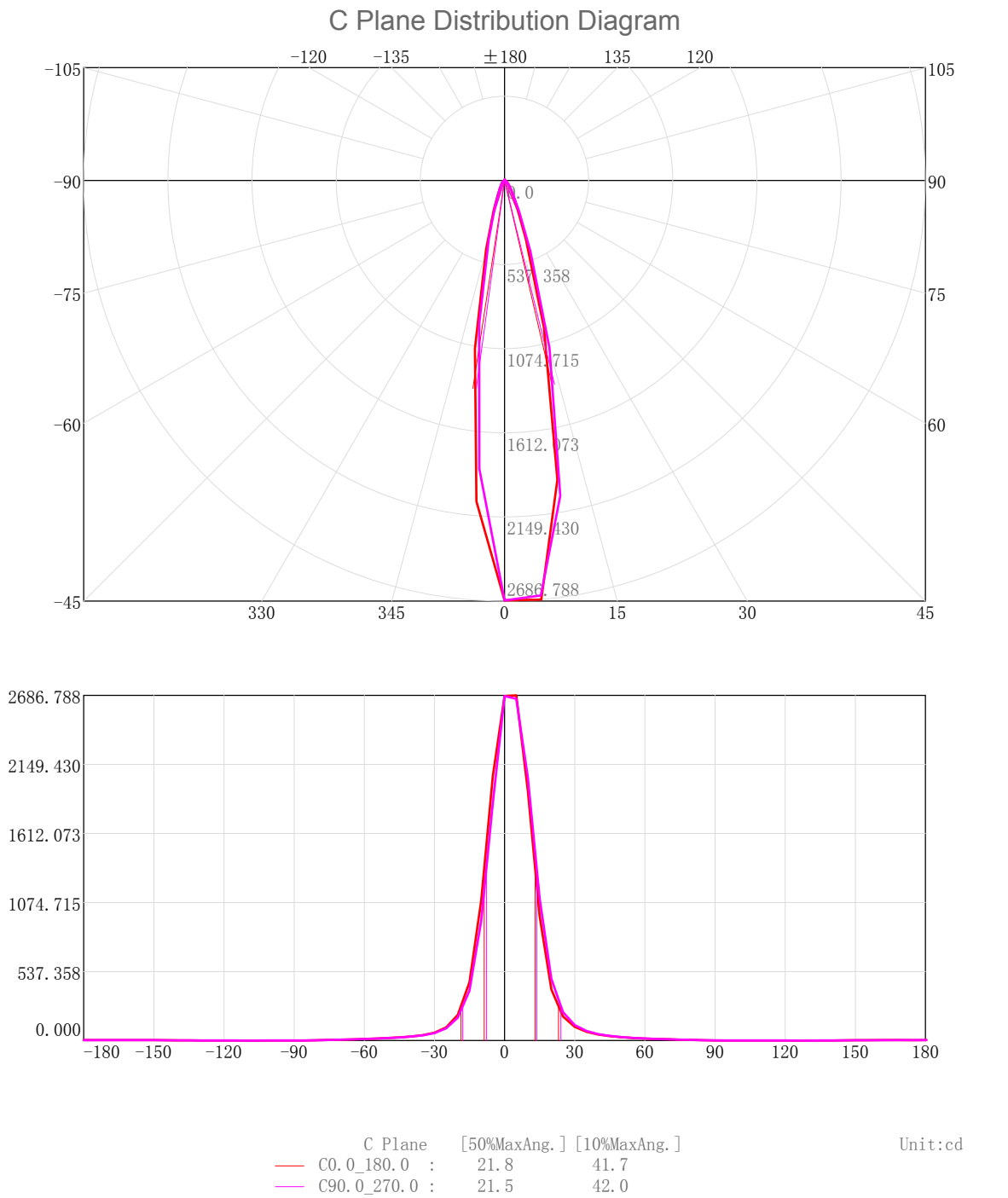
## Character Parameter

Lamp Speciality Parameter	Luminaire Speciality Parameter	
Rated Flux(lm): 603.440	Luminary Flux(lm): 603.442	Field Angle(10%Imax): 41.7(°)
Rated Power(W):	Luminary Efficiency: 100.00%	Down Lumens&Percent: 593.788lm 98.40%
Rated Voltage(V):	Luminary EER(lm/W): 72.757	Up Lumens&Percent: 9.654lm 1.60%
Tested Power(W): 8.294	Max.Candela(cd): 2686.788	S/MH: C0_a180=0.373 C90_270=0.368
Lamps' Inside: 1	Max Cand@Ang. (°): C=0.0 γ=5.0	CIE Type: Semi-Direct
Tested Electrics(V, A, pf):239.6, 0.038, 0.894	Beam Angle(50%Imax): 21.8(°)	ErP φ use(90°): 553.072lm
Lamp Size(W*L*H):0.076m*0.076m*0.000m	Left=-8.7°, Right=13.1°	IRF(%): 911.356



2D Plane Light Intensity Distribution Curve

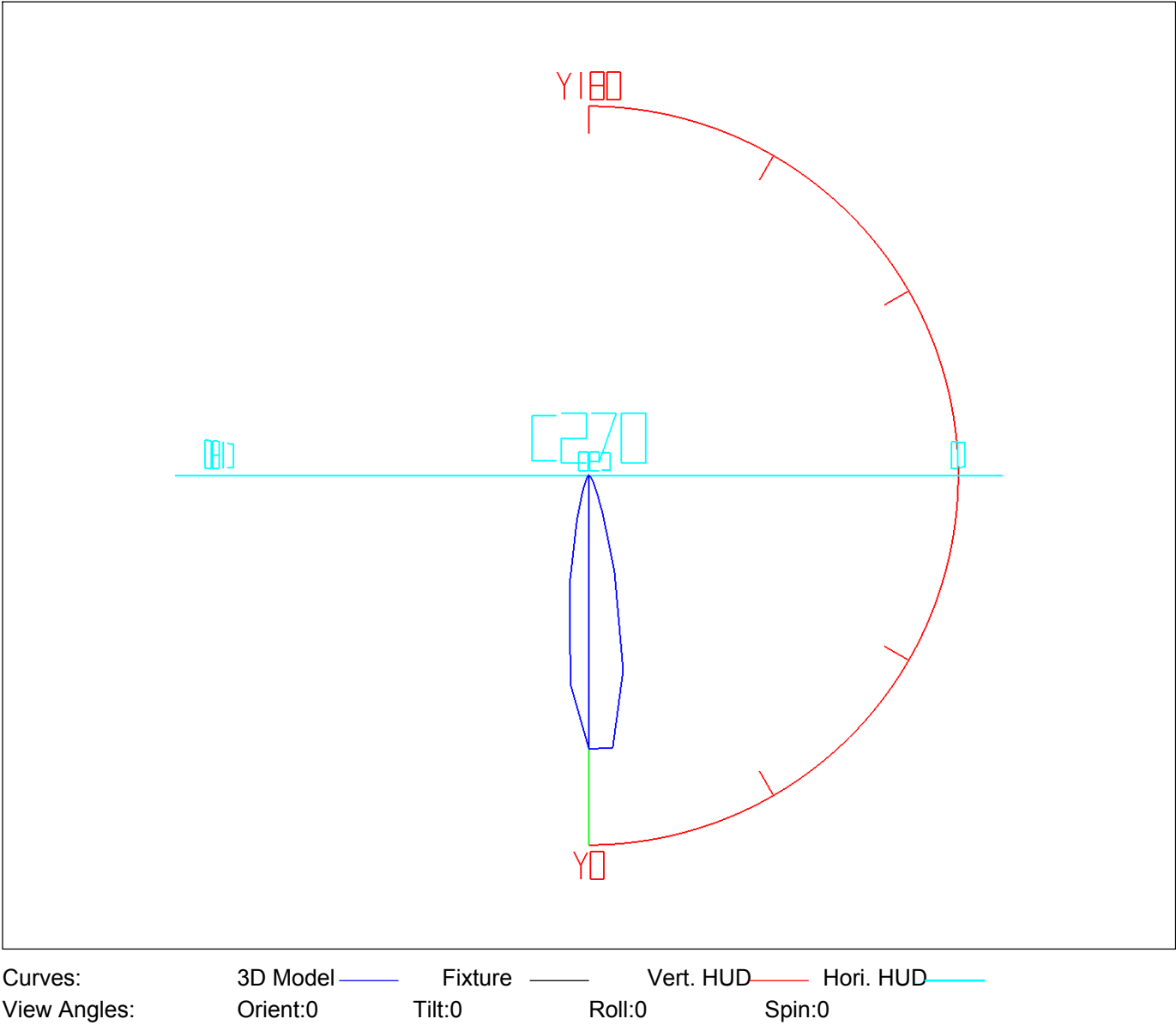
Lum. Name:TR08-09-DW-01 1800-3000K RA90 24D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/29



3D Light Intensity Distribution Modal

Lum. Name: TR08-09-DW-01 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: 2022/08/29

3D Light Intensity Distribution Modal

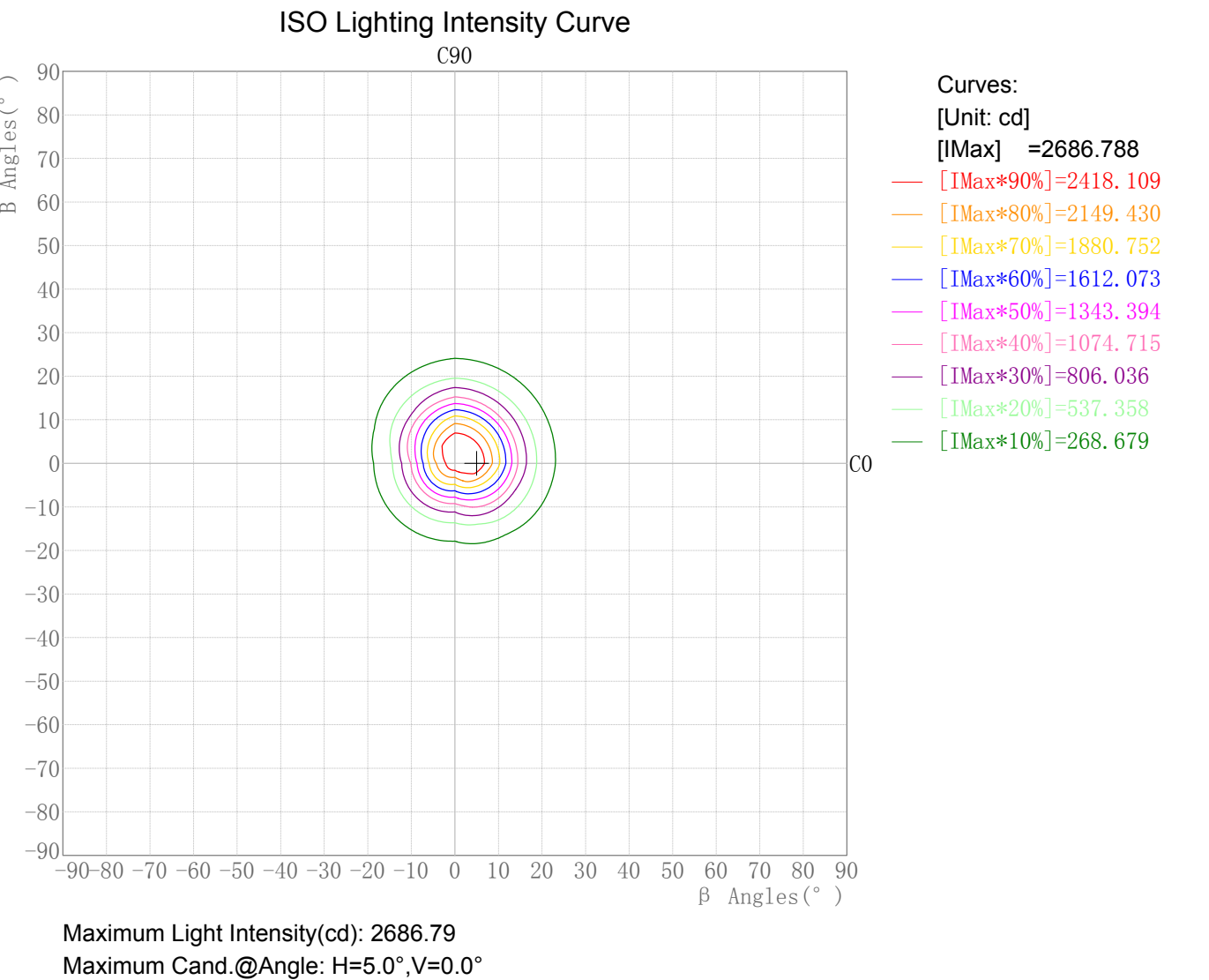


Zonal Flux Tabulation

Zone( γ )	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-5.0	59.71	59.71	9.90	9.90
5.0-10.0	136.48	196.19	22.62	32.51
10.0-15.0	132.41	328.60	21.94	54.45
15.0-20.0	86.06	414.66	14.26	68.72
20.0-25.0	48.93	463.59	8.11	76.82
25.0-30.0	30.34	493.93	5.03	81.85
30.0-35.0	21.30	515.22	3.53	85.38
35.0-40.0	16.33	531.56	2.71	88.09
40.0-45.0	13.17	544.73	2.18	90.27
45.0-50.0	10.89	555.61	1.80	92.07
50.0-55.0	9.10	564.71	1.51	93.58
55.0-60.0	7.65	572.36	1.27	94.85
60.0-65.0	6.34	578.70	1.05	95.90
65.0-70.0	5.21	583.92	0.86	96.76
70.0-75.0	4.14	588.05	0.69	97.45
75.0-80.0	2.95	591.01	0.49	97.94
80.0-85.0	1.79	592.80	0.30	98.24
85.0-90.0	0.99	593.79	0.16	98.40
90.0-95.0	0.70	594.48	0.12	98.52
95.0-100.0	0.60	595.09	0.10	98.62
100.0-105.0	0.49	595.57	0.08	98.70
105.0-110.0	0.36	595.93	0.06	98.76
110.0-115.0	0.35	596.28	0.06	98.81
115.0-120.0	0.39	596.67	0.06	98.88
120.0-125.0	0.36	597.03	0.06	98.94
125.0-130.0	0.38	597.41	0.06	99.00
130.0-135.0	0.49	597.90	0.08	99.08
135.0-140.0	0.63	598.53	0.10	99.19
140.0-145.0	0.78	599.31	0.13	99.32
145.0-150.0	0.89	600.21	0.15	99.46
150.0-155.0	0.89	601.10	0.15	99.61
155.0-160.0	0.81	601.91	0.13	99.75
160.0-165.0	0.67	602.58	0.11	99.86
165.0-170.0	0.49	603.06	0.08	99.94
170.0-175.0	0.28	603.35	0.05	99.98
175.0-180.0	0.09	603.44	0.02	100.00

Rectangle ISO Lighting Intensity Diagram

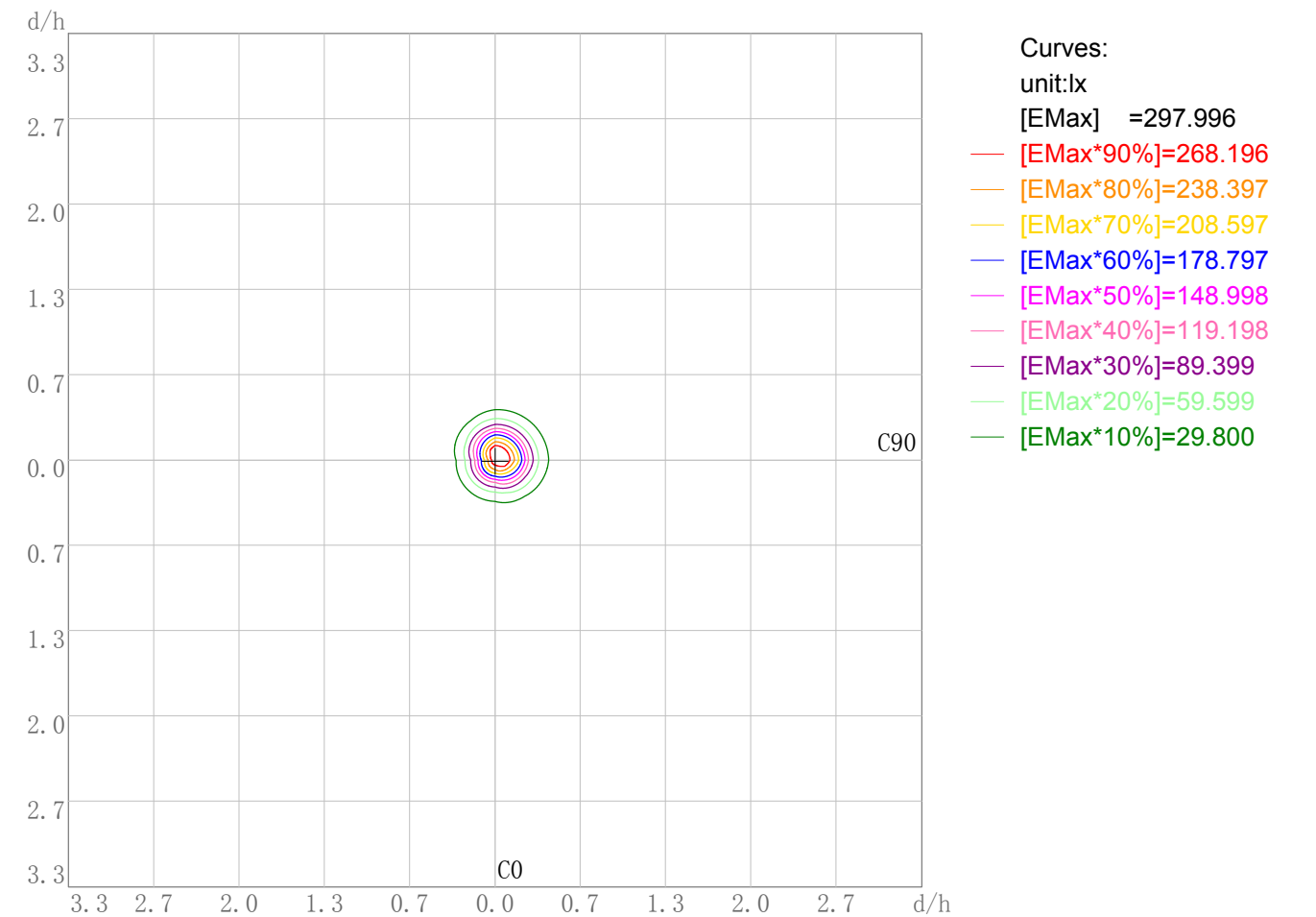
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Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/29



Plane ISO-Illuminance Diagram

Lum. Name: TR08-09-DW-01 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: 2022/08/29

Plane ISO-Illuminance Curve

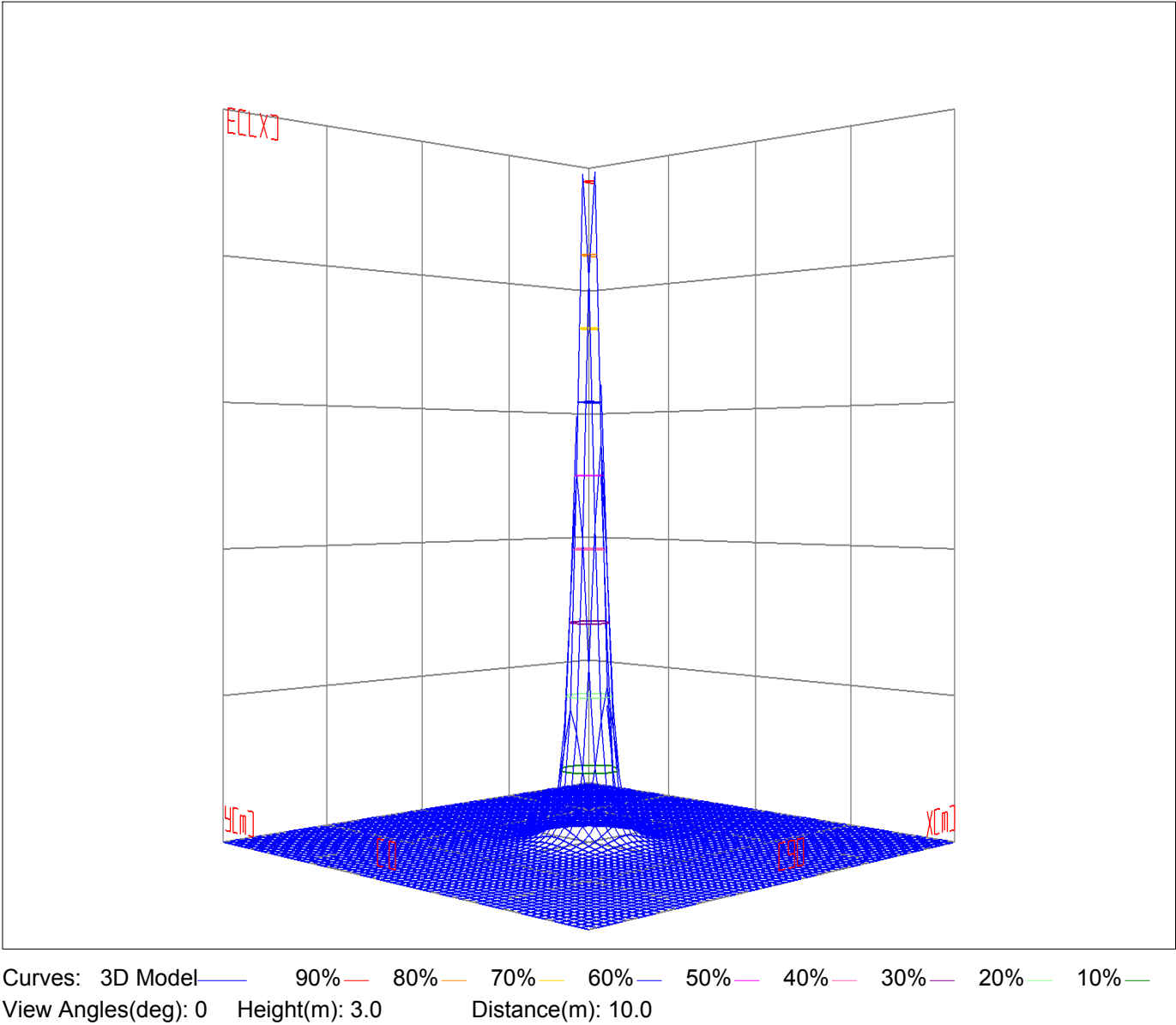


Working Plane Luminaire Mounting Height(m): 3.00  
Working Plane Maximum Illuminance(lx): 298.00  
Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

3D Plane ISO Illuminance Diagram

Lum. Name: TR08-09-DW-01 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: 2022/08/29

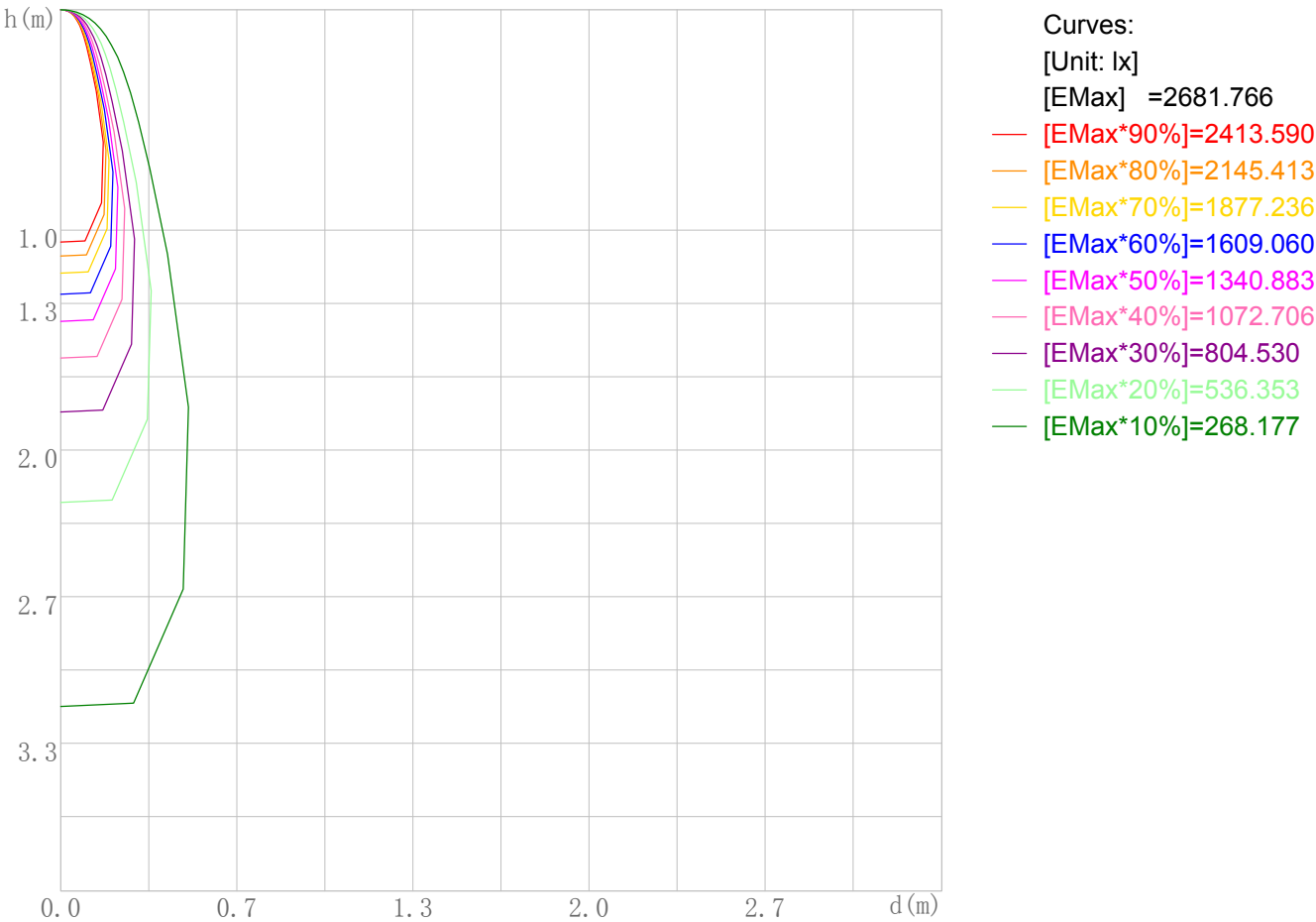
3D Plane Illuminance Modal



Space ISO Illuminance Diagram

Lum. Name: TR08-09-DW-01 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: 2022/08/29

Space ISO Illuminance Curve

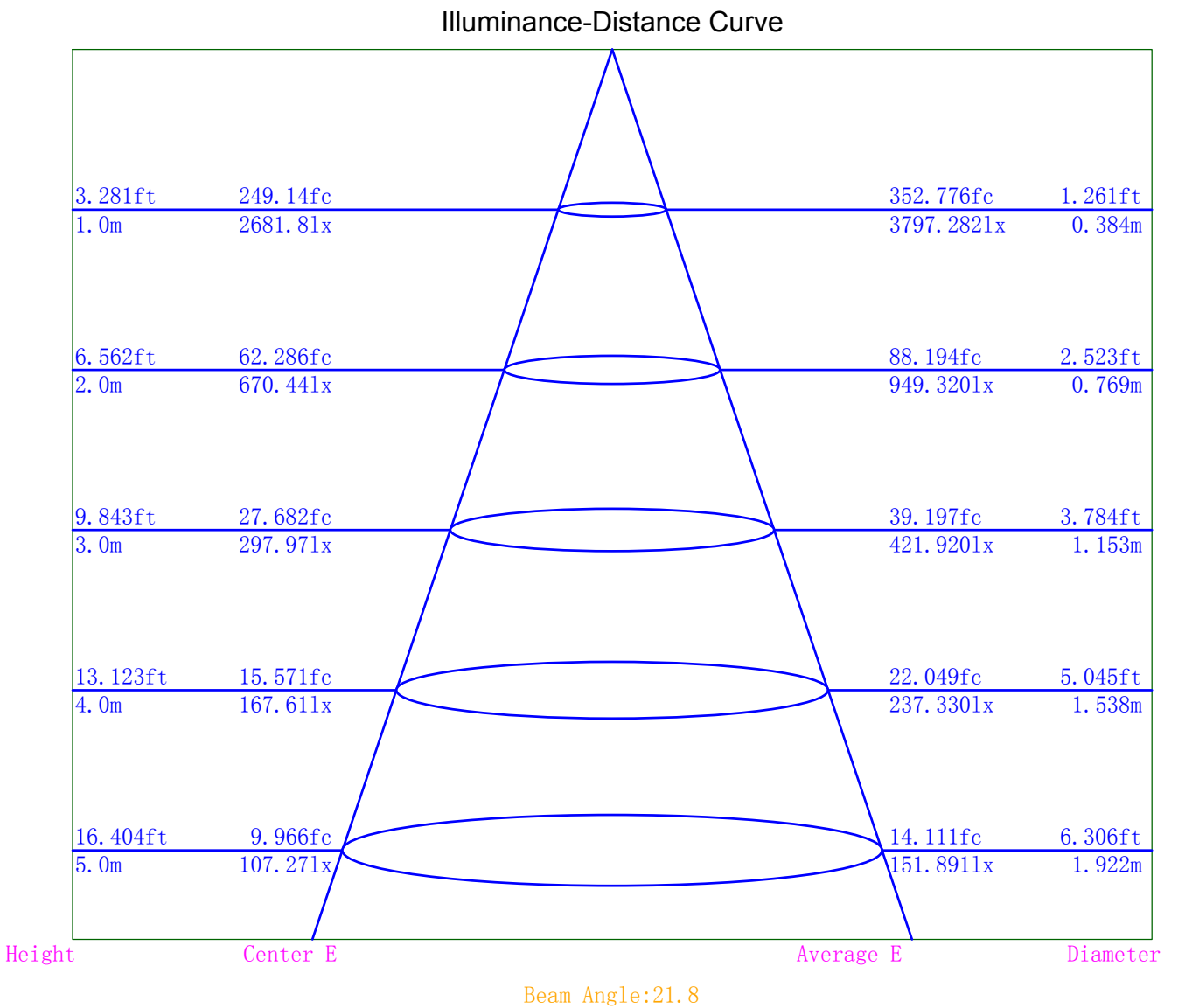


Space Plane Maximum Illuminance and @Angle:2681.77lx,0.0deg  
Plane Maximum Lighting Intensity and @Angle:2686.788cd,0deg



Illuminance-Distance Diagram

Lum. Name: TR08-09-DW-01 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: 2022/08/29



Indoor Luminance Limiting Curves

Lum. Name: TR08-09-DW-01 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: 2022/08/29

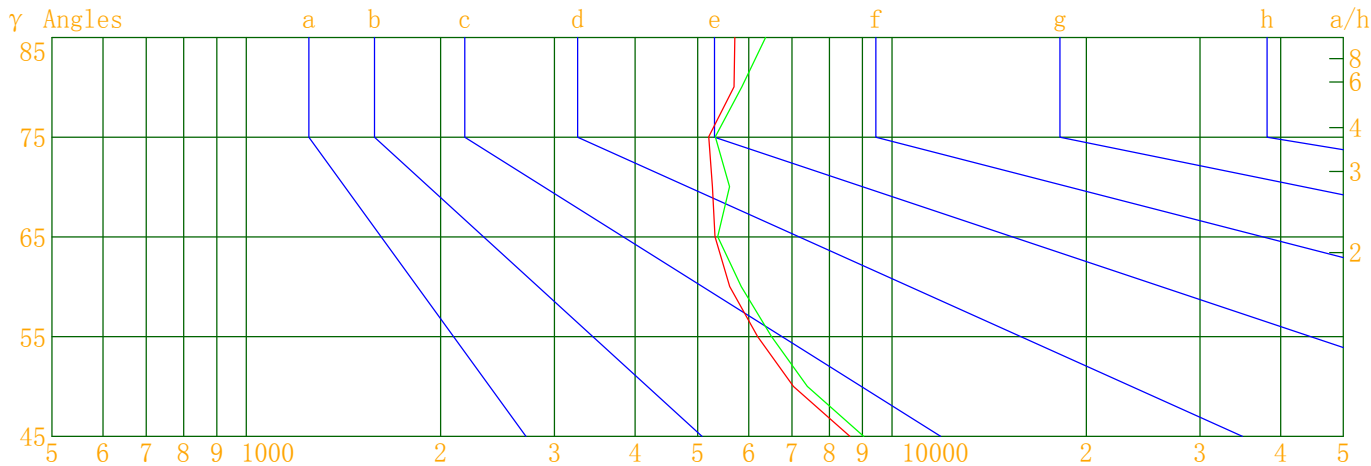
Glare Grade Table

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	8610	7036	6193	5605	5320	5273	5201	5695	5709
C90	9038	7394	6508	5840	5371	5603	5327	5856	6371

Luminance Limiting Curve



Luminous Size:

Length(m)=0.076

Width(m)=0.076

Height(m)=0.000

Area(m^2)=0.005776

Luminous Type:

Without Luminous Side

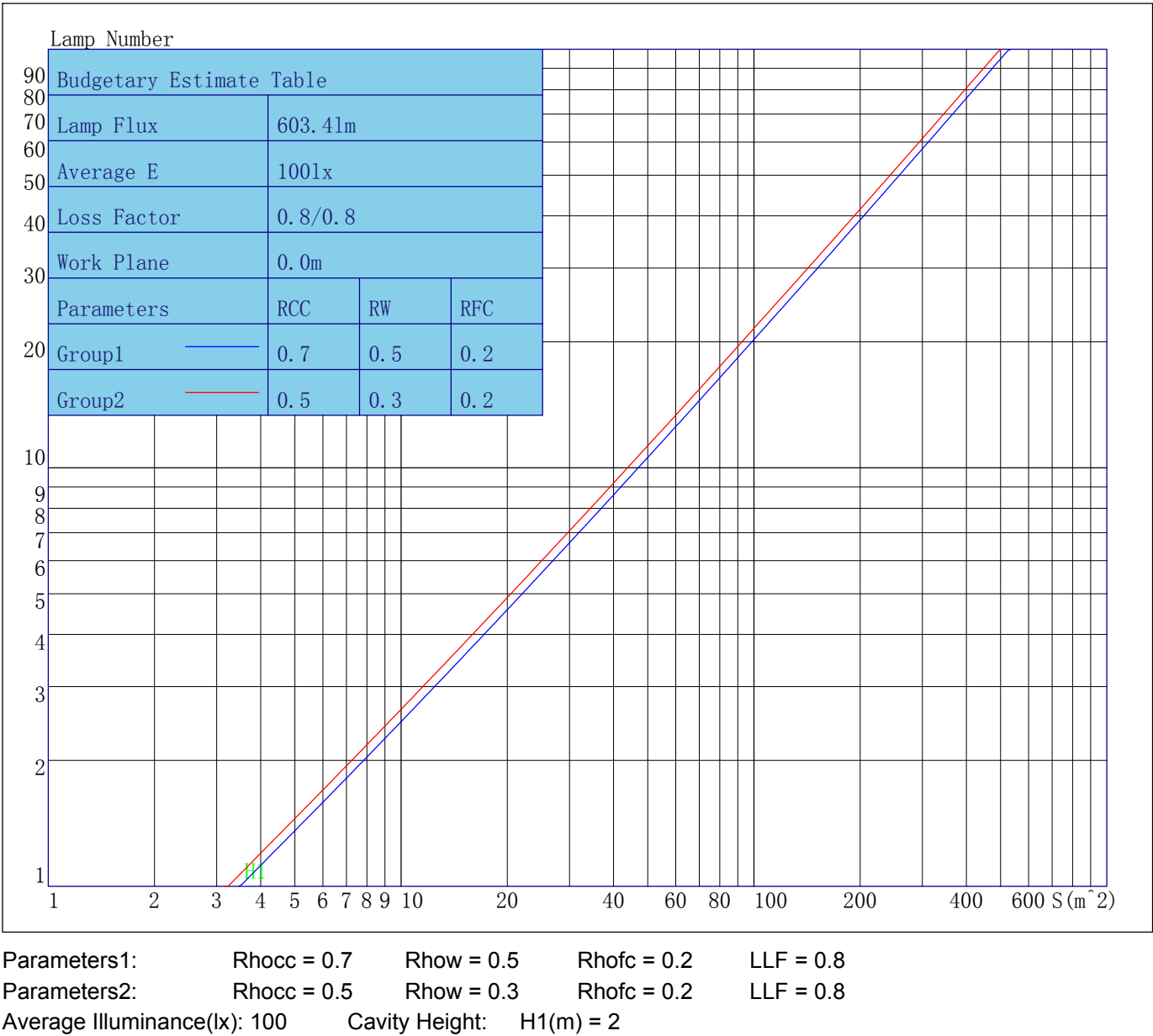
Luminous Curves:

C0-C180 Color: —

C90-C270 Color: —

Indoor Budgetary Estimate Table

Lum. Name: TR08-09-DW-01 1800-3000K RA90 24D	Lum. Catalog:	Test ID: 01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
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Indoor Coefficient of Utilization Table

Lum. Name: TR08-09-DW-01 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: 2022/08/29

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

Unified Glare Rating Table

Lum. Name:TR08-09-DW-01 1800-3000K RA90 24D	Lum. Catelog:	Test ID:01
Lamp Name:	Lamp Catalog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/29

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	14.4	15.4	14.8	15.8	16.1	14.7	15.7	15.1	16.0	16.4
	15.5	16.4	15.9	16.8	17.2	15.8	16.7	16.2	17.0	17.5
	16.1	16.9	16.5	17.3	17.7	16.3	17.2	16.8	17.5	18.0
	16.6	17.4	17.1	17.8	18.2	16.9	17.6	17.3	18.0	18.5
	16.9	17.5	17.3	18.0	18.4	17.1	17.8	17.6	18.2	18.7
	17.0	17.7	17.5	18.1	18.6	17.3	18.0	17.8	18.4	18.8
X=4H    Y=2H	14.8	15.6	15.2	16.0	16.4	15.0	15.8	15.5	16.2	16.6
	16.1	16.8	16.6	17.2	17.7	16.4	17.0	16.8	17.5	17.9
	16.8	17.4	17.3	17.8	18.3	17.0	17.6	17.5	18.1	18.6
	17.5	18.0	18.0	18.5	19.0	17.7	18.2	18.2	18.7	19.2
	17.8	18.3	18.3	18.7	19.3	18.0	18.5	18.5	19.0	19.5
	18.0	18.4	18.6	18.9	19.5	18.3	18.7	18.8	19.2	19.7
X=8H    Y=4H	17.0	17.5	17.5	17.9	18.5	17.2	17.7	17.7	18.2	18.7
	17.9	18.2	18.4	18.8	19.3	18.1	18.5	18.6	19.0	19.6
	18.3	18.6	18.8	19.1	19.7	18.5	18.8	19.1	19.4	19.9
	18.6	18.9	19.2	19.4	20.0	18.9	19.2	19.5	19.7	20.3
X=12H    Y=4H	17.0	17.4	17.5	17.9	18.4	17.2	17.6	17.8	18.2	18.7
	17.9	18.2	18.5	18.7	19.3	18.2	18.5	18.7	19.0	19.6
	18.4	18.7	18.9	19.2	19.8	18.6	18.9	19.2	19.4	20.0
Variations with the objverver position at spacings										
S=1.0H	0.3/-0.3					0.3/-0.4				
S=1.5H	0.6/-0.6					0.6/-0.6				
S=2.0H	0.7/-0.8					0.6/-0.8				
Reduced UGR Table:										
Nordic Standard Table:	BK0					BK0				
Correction Value	2.7					2.7				

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	2681.77	2681.77	2681.77	2681.77
γ 5.0	2686.79	2659.89	2057.91	1848.02
γ 10.0	1941.00	2045.46	1089.35	932.24
γ 15.0	968.60	1107.23	454.41	390.21
γ 20.0	397.89	480.47	200.09	178.19
γ 25.0	188.49	222.06	103.19	95.58
γ 30.0	107.70	121.05	61.95	58.82
γ 35.0	69.51	75.87	42.39	41.24
γ 40.0	47.87	51.31	32.00	31.39
γ 45.0	35.16	36.91	25.10	24.77
γ 50.0	26.12	27.45	20.03	19.93
γ 55.0	20.52	21.56	16.12	15.63
γ 60.0	16.19	16.87	13.02	12.54
γ 65.0	12.99	13.11	10.07	9.54
γ 70.0	10.42	11.07	7.77	7.37
γ 75.0	7.78	7.96	5.79	5.18
γ 80.0	5.71	5.87	3.16	2.68
γ 85.0	2.87	3.21	1.54	1.35
γ 90.0	1.53	1.69	1.20	1.05
γ 95.0	1.36	1.27	1.28	0.79
γ 100.0	1.32	1.15	1.10	0.64
γ 105.0	0.66	1.05	0.39	0.96
γ 110.0	0.59	0.86	0.53	0.48
γ 115.0	0.62	1.17	0.63	0.62
γ 120.0	0.89	0.90	0.69	0.82
γ 125.0	0.48	0.70	1.15	0.66
γ 130.0	0.91	0.47	1.26	1.35
γ 135.0	0.89	1.03	1.81	1.97
γ 140.0	1.43	1.39	2.47	2.65
γ 145.0	2.16	2.19	3.19	3.22
γ 150.0	2.76	2.85	3.95	3.92
γ 155.0	3.40	3.29	4.17	3.95
γ 160.0	3.79	3.45	4.62	4.14
γ 165.0	4.19	4.13	4.21	4.09
γ 170.0	4.18	4.05	4.13	3.75
γ 175.0	3.68	3.90	4.07	3.94
γ 180.0	4.00	4.00	4.00	4.00