

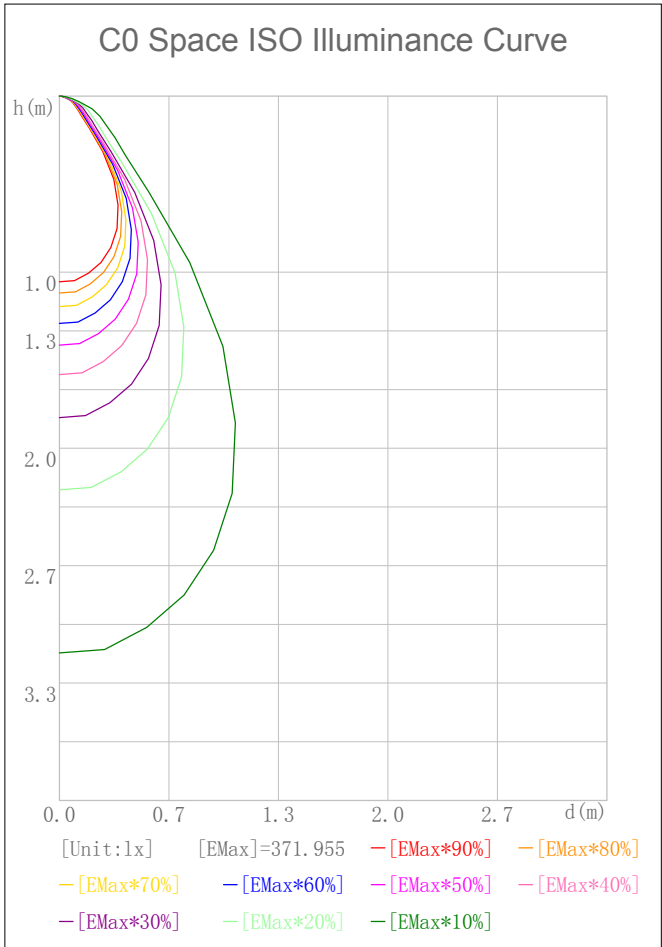
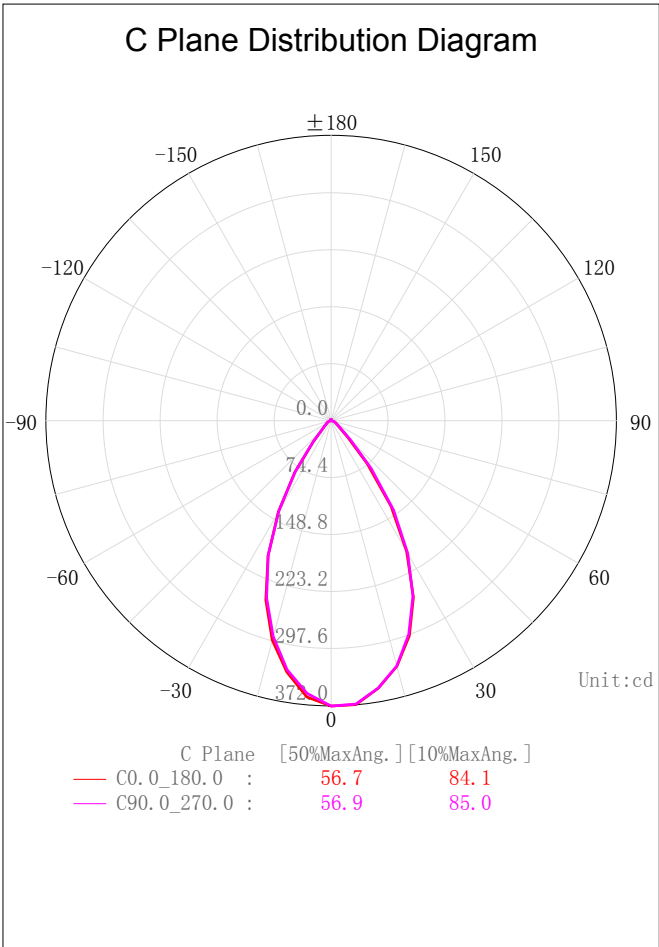
Indoor Luminaire Photometric Data

Description Information

Luminary Name:TR09-06-DW-04 1800-3000K RA90 60D		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):0.038m*0.038m*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(%): 50.0

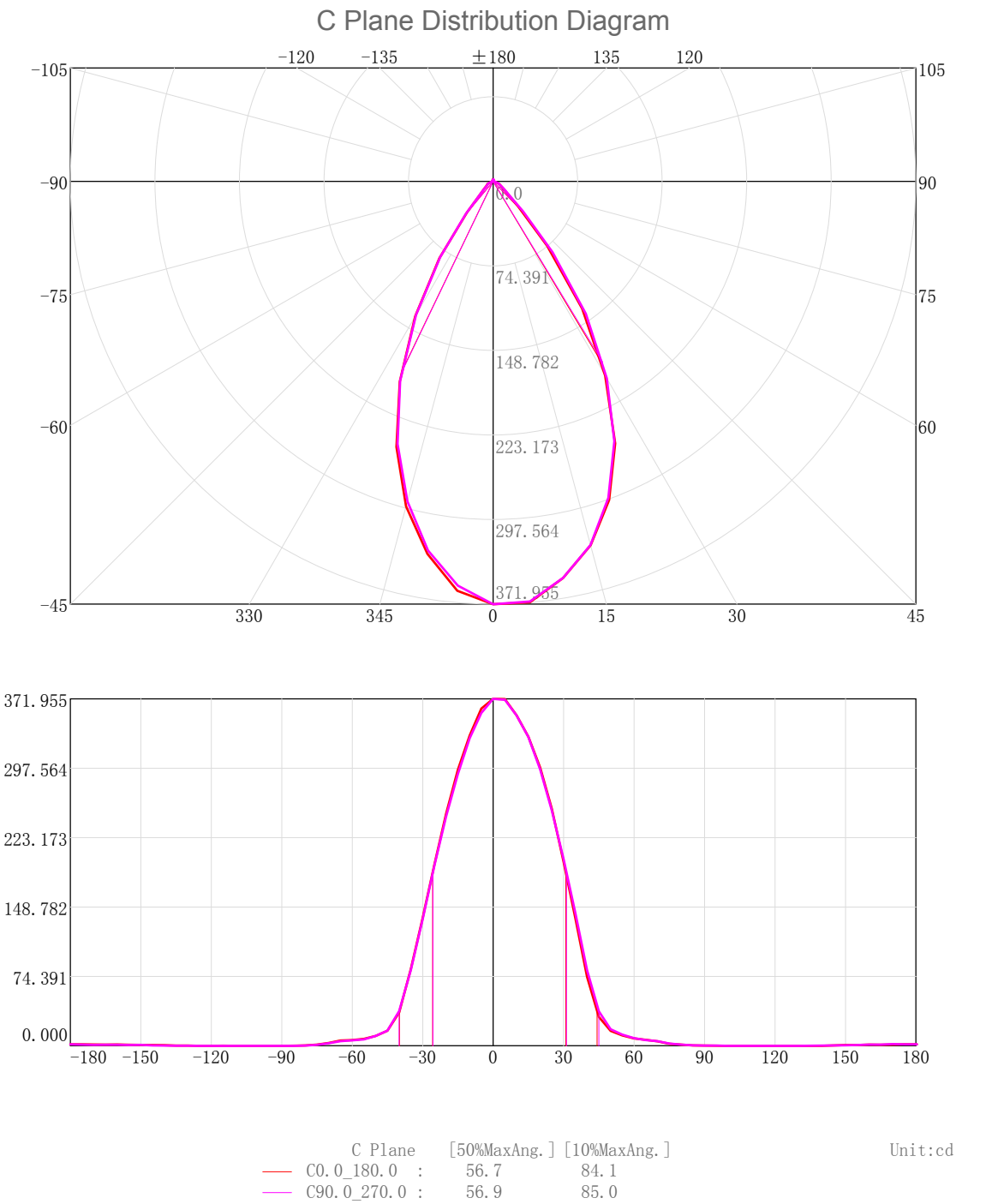
Character Parameter

Lamp Speciality Parameter		Luminaire Speciality Parameter	
Rated Flux(lm): 333.350	Luminary Flux(lm): 333.353	Field Angle(10%Imax): 84.1(°)	
Rated Power(W):	Luminary Efficiency: 100.00%	Down Lumens&Percent: 331.730lm 99.51%	
Rated Voltage(V):	Luminary EER(lm/W): 57.425	Up Lumens&Percent: 1.623lm 0.49%	
Tested Power(W): 5.805	Max. Candela(cd): 371.955	S/MH: C0_a180=0.869 C90_270=0.864	
Lamps' Inside: 1	Max Cand@Ang. (°): C=0.0 γ=0.0	CIE Type: Semi-Direct	
Tested Electrics (V, A, pf):240.0, 0.029, 0.834	Beam Angle(50%Imax): 56.7(°)	ErP ϕ use(90°): 307.453lm	
Lamp Size (W*L*H):0.038m*0.038m*0.000m	Left=-25.7°, Right=30.9°	IRF(%): 230.373	



2D Plane Light Intensity Distribution Curve

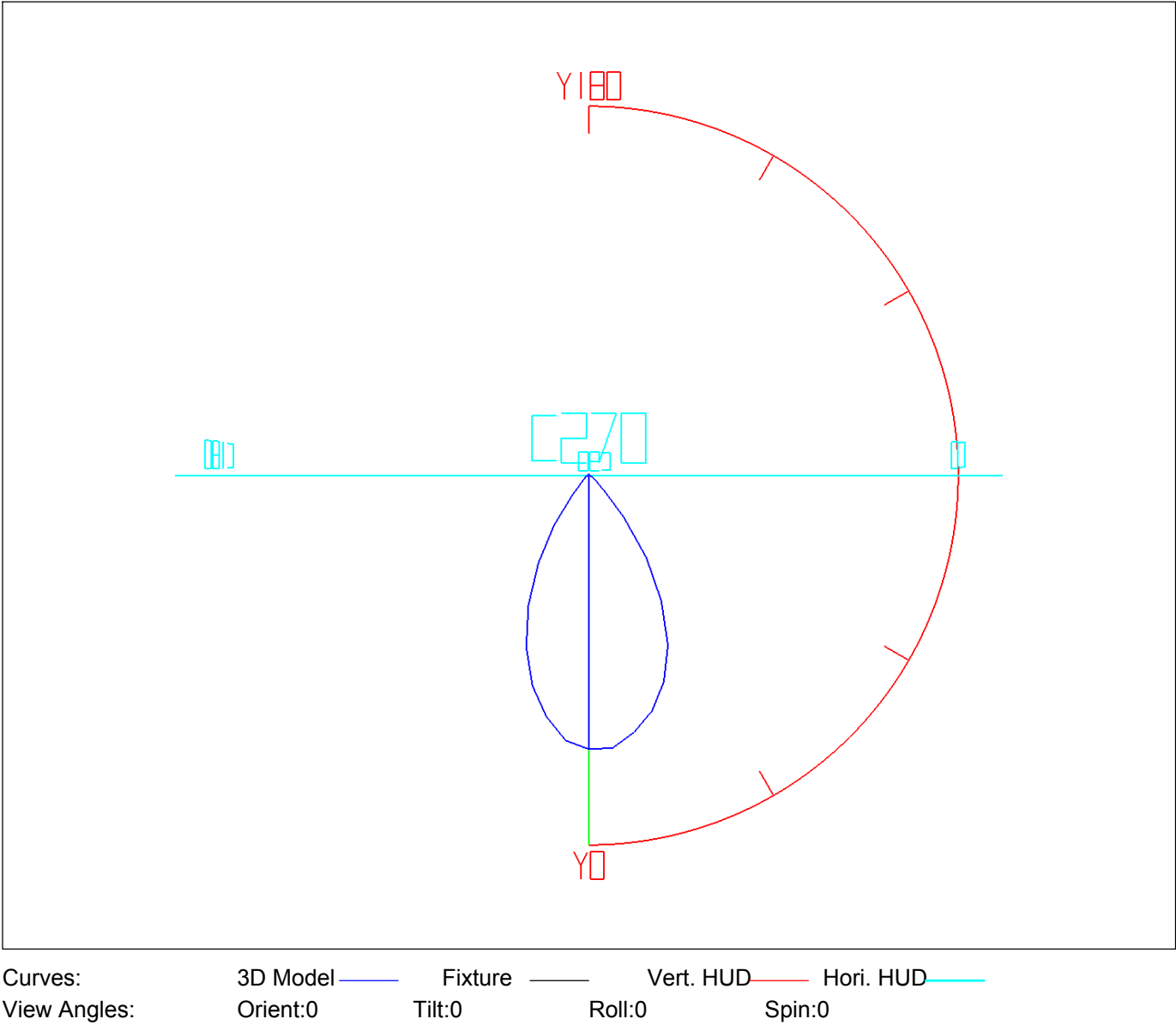
Lum. Name: TR09-06-DW-04 1800-3000K RA90 60D	Lum. Catelog:	Test ID: 01
Lamp Name:	Lamp Catelog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/29



3D Light Intensity Distribution Modal

Lum. Name: TR09-06-DW-04 1800-3000K 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: 2022/08/29

3D Light Intensity Distribution Modal

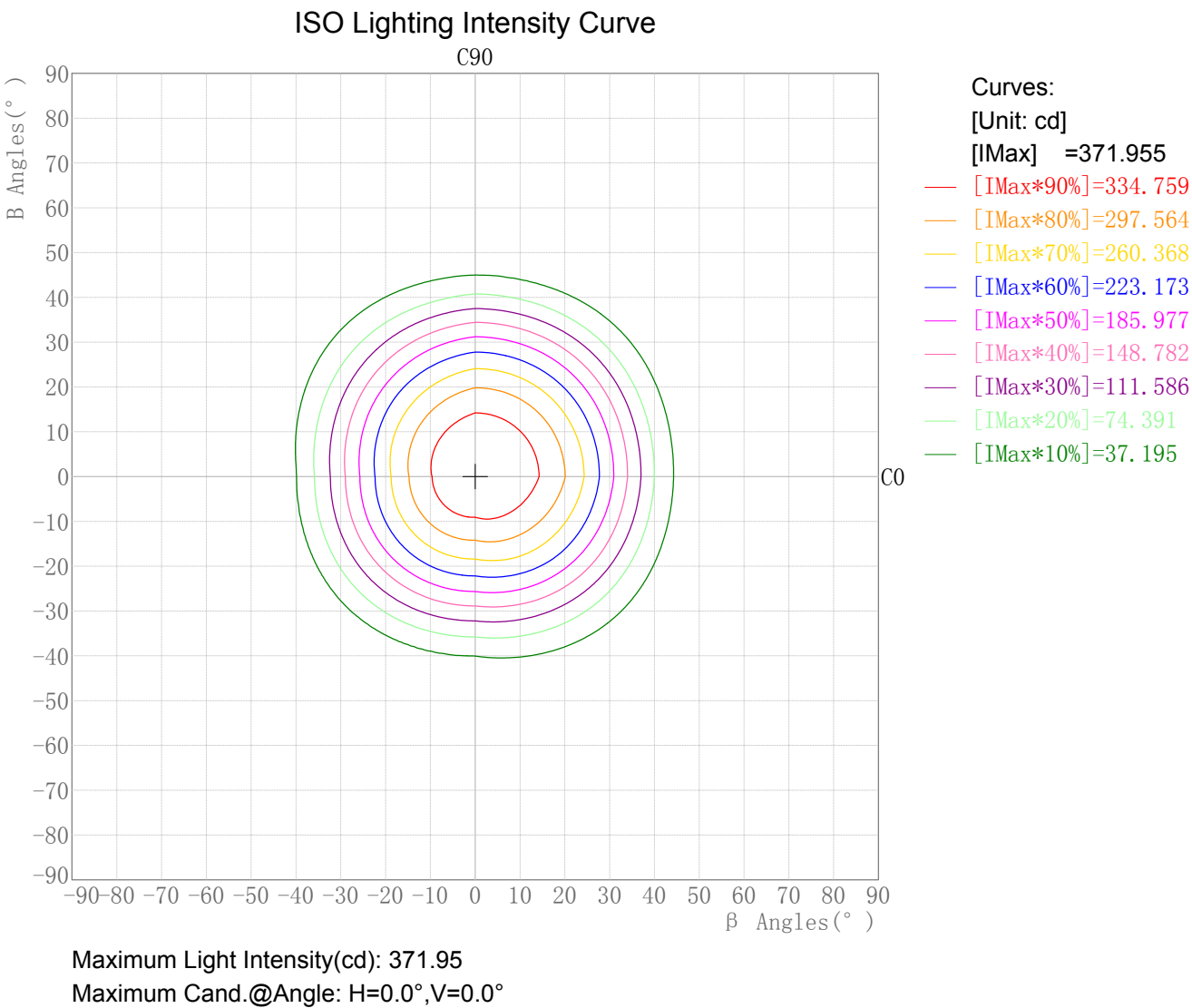


Zonal Flux Tabulation

Zone(γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-5.0	8.81	8.81	2.64	2.64
5.0-10.0	25.33	34.14	7.60	10.24
10.0-15.0	38.86	73.00	11.66	21.90
15.0-20.0	48.19	121.19	14.46	36.35
20.0-25.0	52.01	173.20	15.60	51.96
25.0-30.0	49.49	222.69	14.85	66.80
30.0-35.0	40.95	263.64	12.28	79.09
35.0-40.0	27.98	291.62	8.39	87.48
40.0-45.0	15.22	306.84	4.57	92.05
45.0-50.0	7.85	314.69	2.36	94.40
50.0-55.0	5.04	319.73	1.51	95.91
55.0-60.0	3.80	323.52	1.14	97.05
60.0-65.0	3.12	326.64	0.94	97.99
65.0-70.0	2.47	329.11	0.74	98.73
70.0-75.0	1.49	330.60	0.45	99.17
75.0-80.0	0.69	331.29	0.21	99.38
80.0-85.0	0.31	331.60	0.09	99.48
85.0-90.0	0.13	331.73	0.04	99.51
90.0-95.0	0.08	331.81	0.02	99.54
95.0-100.0	0.04	331.85	0.01	99.55
100.0-105.0	0.00	331.85	0.00	99.55
105.0-110.0	0.00	331.85	0.00	99.55
110.0-115.0	0.01	331.86	0.00	99.55
115.0-120.0	0.01	331.86	0.00	99.55
120.0-125.0	0.00	331.86	0.00	99.55
125.0-130.0	0.02	331.89	0.01	99.56
130.0-135.0	0.04	331.93	0.01	99.57
135.0-140.0	0.08	332.01	0.02	99.60
140.0-145.0	0.15	332.16	0.04	99.64
145.0-150.0	0.21	332.37	0.06	99.70
150.0-155.0	0.23	332.60	0.07	99.77
155.0-160.0	0.24	332.84	0.07	99.85
160.0-165.0	0.21	333.05	0.06	99.91
165.0-170.0	0.16	333.21	0.05	99.96
170.0-175.0	0.11	333.32	0.03	99.99
175.0-180.0	0.04	333.35	0.01	100.00

Rectangle ISO Lighting Intensity Diagram

Lum. Name: TR09-06-DW-04 1800-3000K 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: 2022/08/29

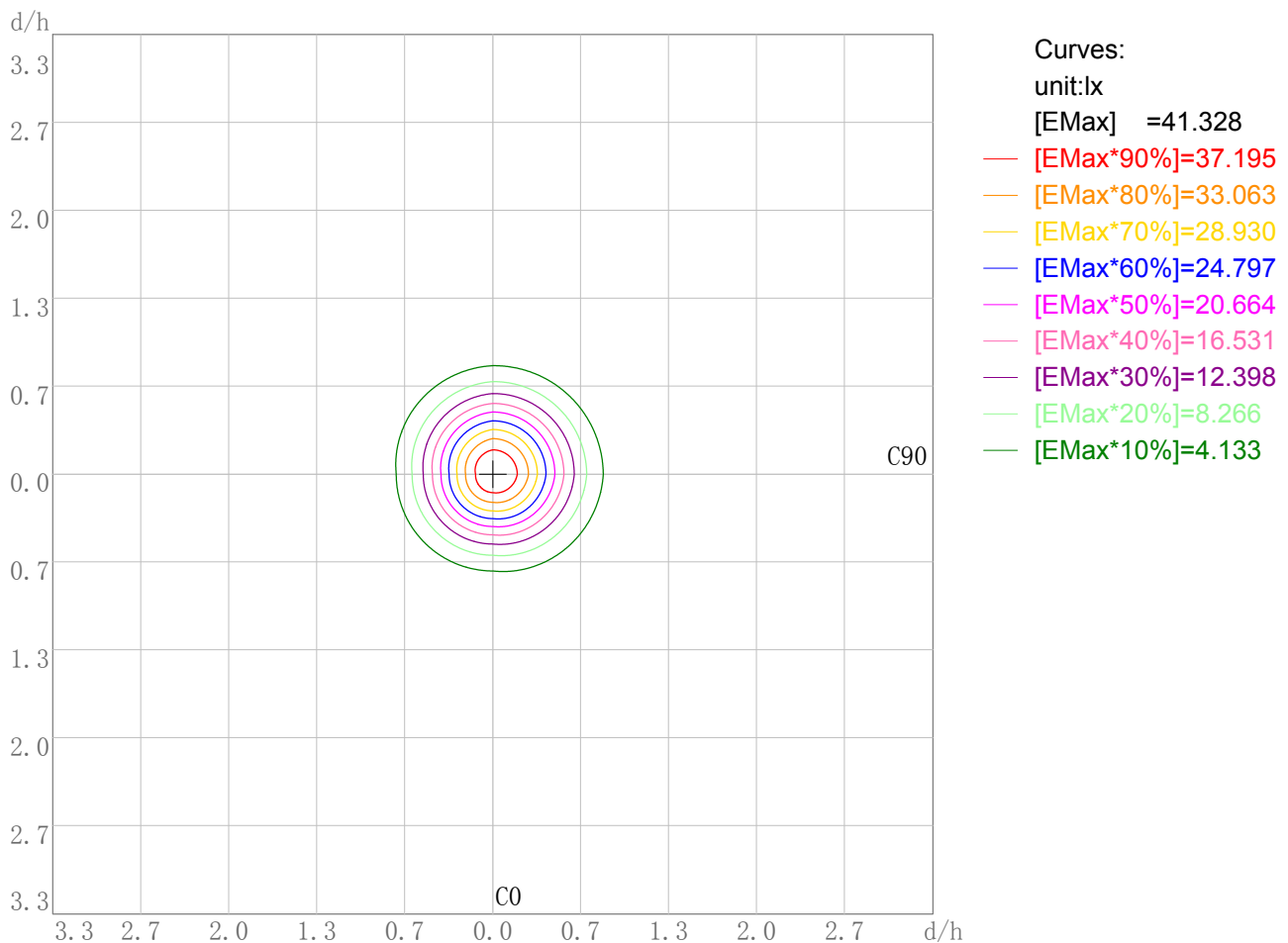


Photometric Filename:TR09-06-DW-04 1800-3000K RA90 60D.IES

Plane ISO-Illuminance Diagram

Lum. Name: TR09-06-DW-04 1800-3000K 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: 2022/08/29

Plane ISO-Illuminance Curve

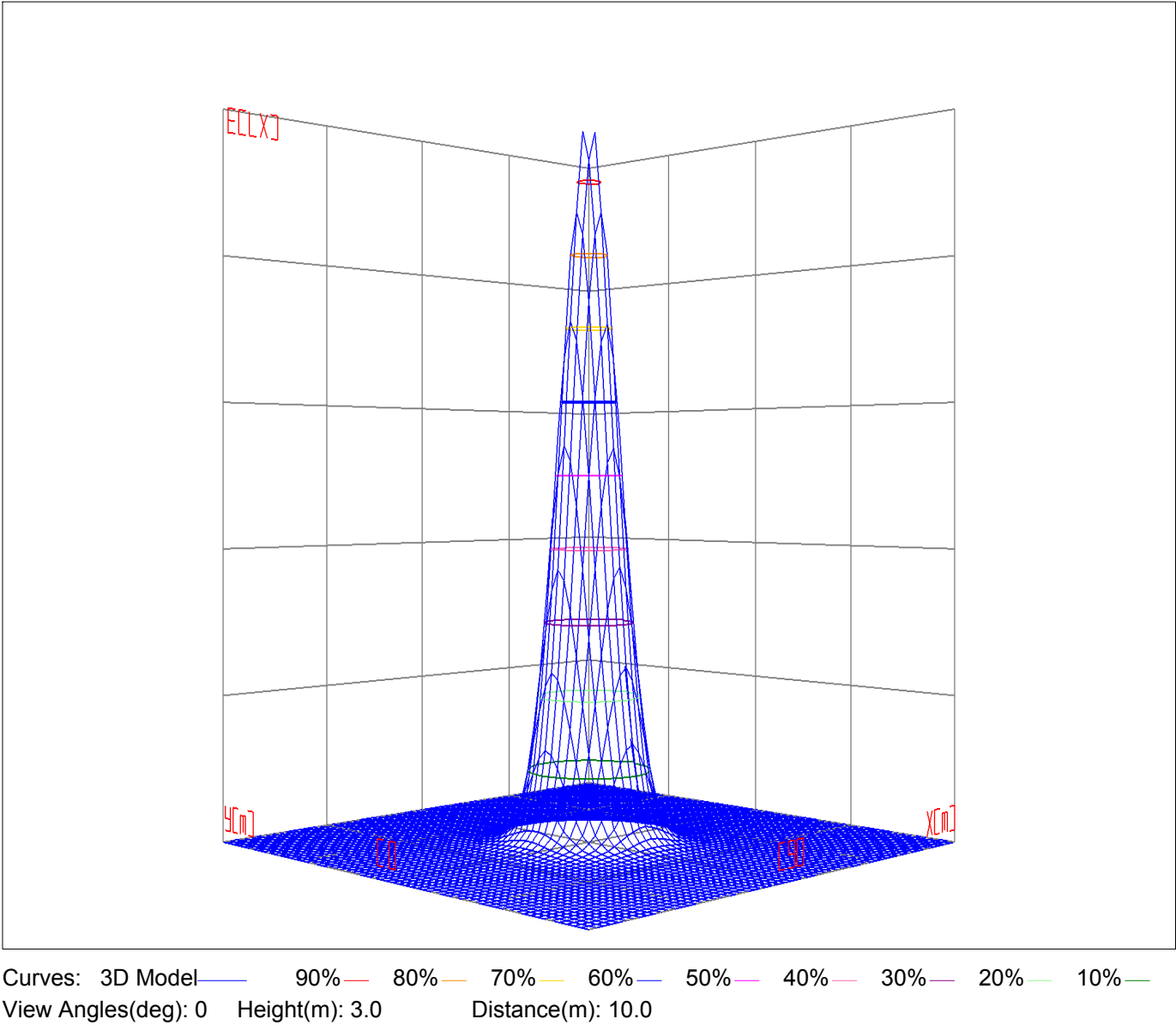


Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 41.33
Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

3D Plane ISO Illuminance Diagram

Lum. Name: TR09-06-DW-04 1800-3000K 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: 2022/08/29

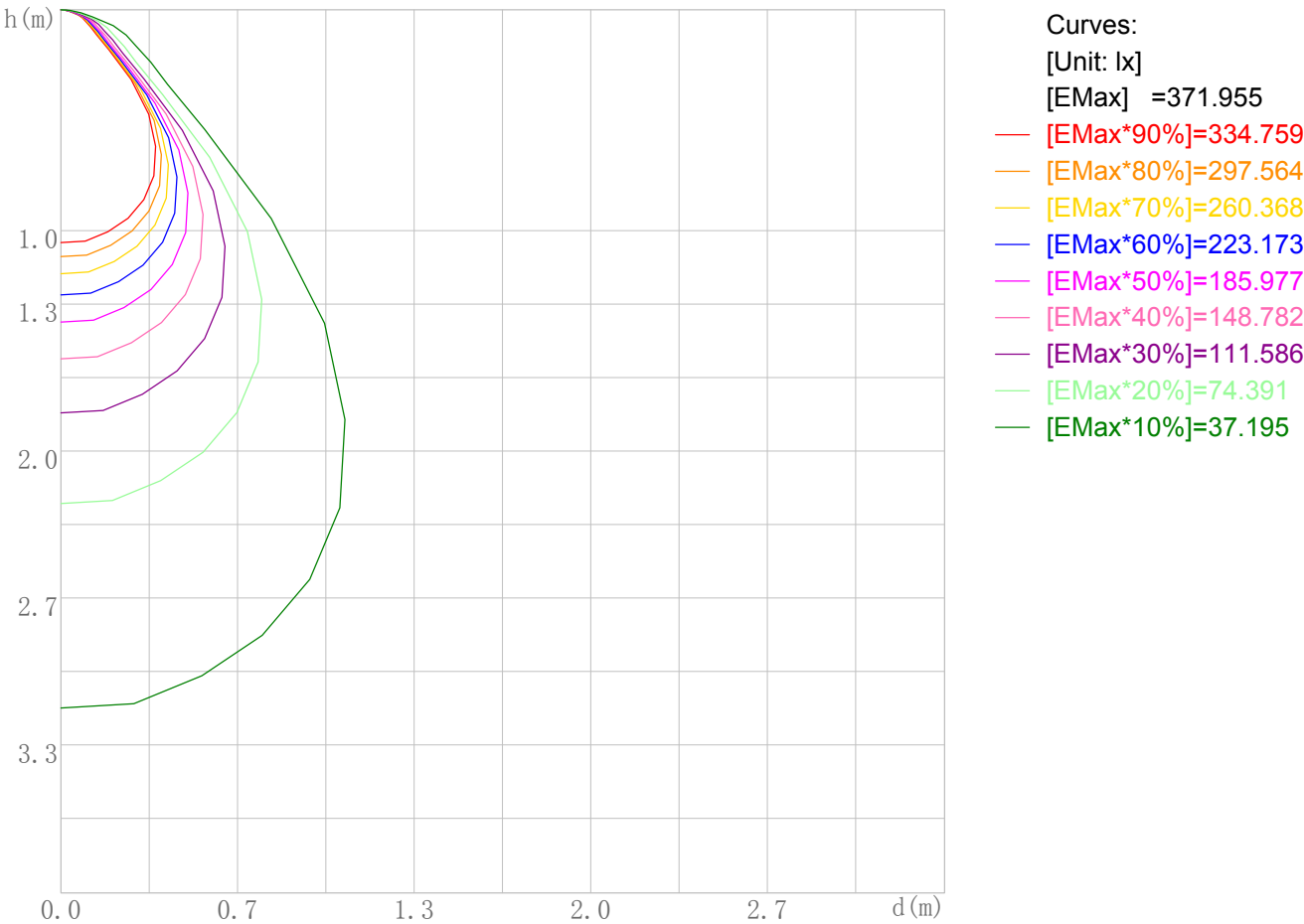
3D Plane Illuminance Modal



Space ISO Illuminance Diagram

Lum. Name: TR09-06-DW-04 1800-3000K 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: 2022/08/29

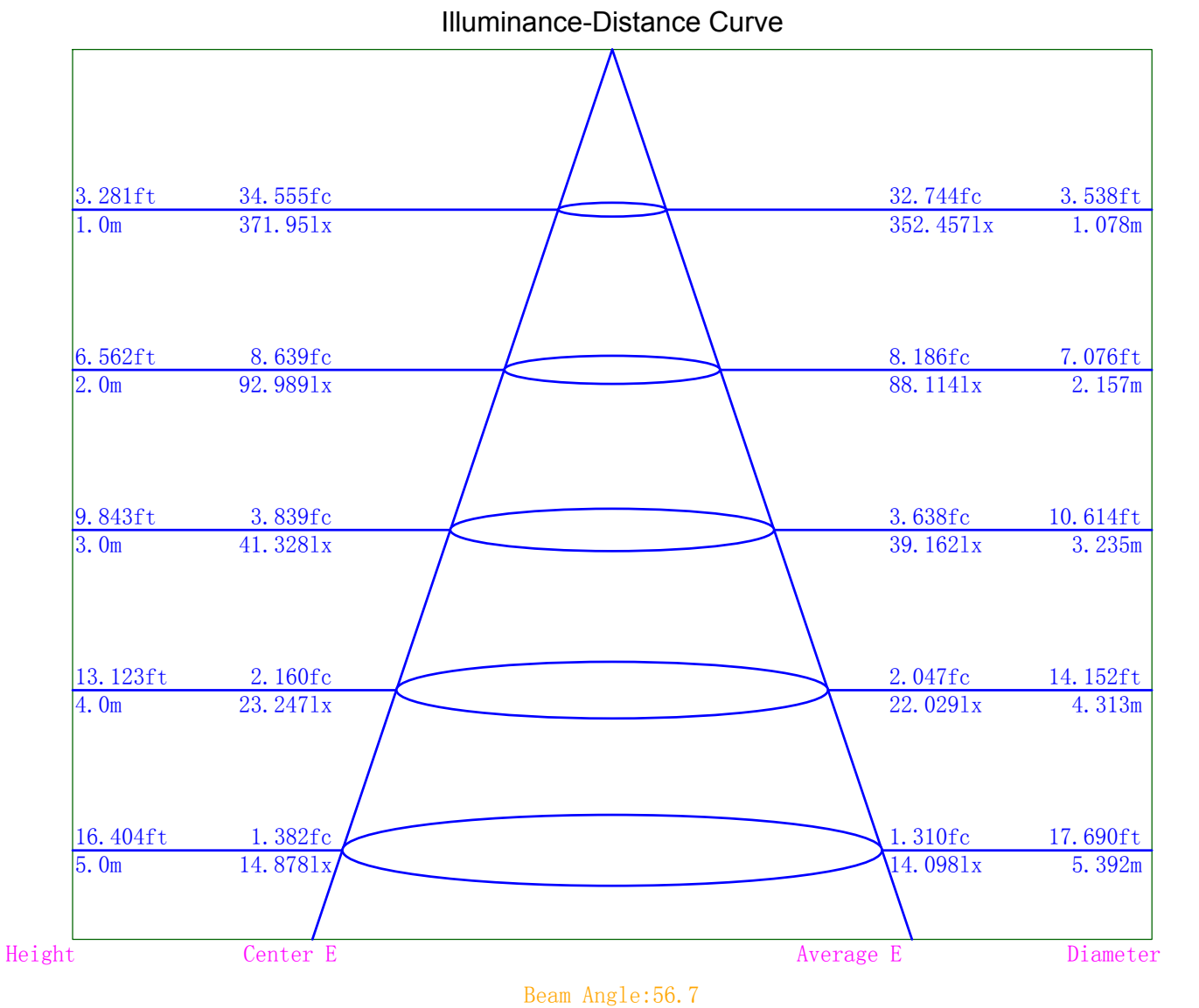
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:371.95lx,0.0deg
Plane Maximum Lighting Intensity and @Angle:371.955cd,0deg

Illuminance-Distance Diagram

Lum. Name:TR09-06-DW-04 1800-3000K 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:2022/08/29



Indoor Luminance Limiting Curves

Lum. Name: TR09-06-DW-04 1800-3000K 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: 2022/08/29

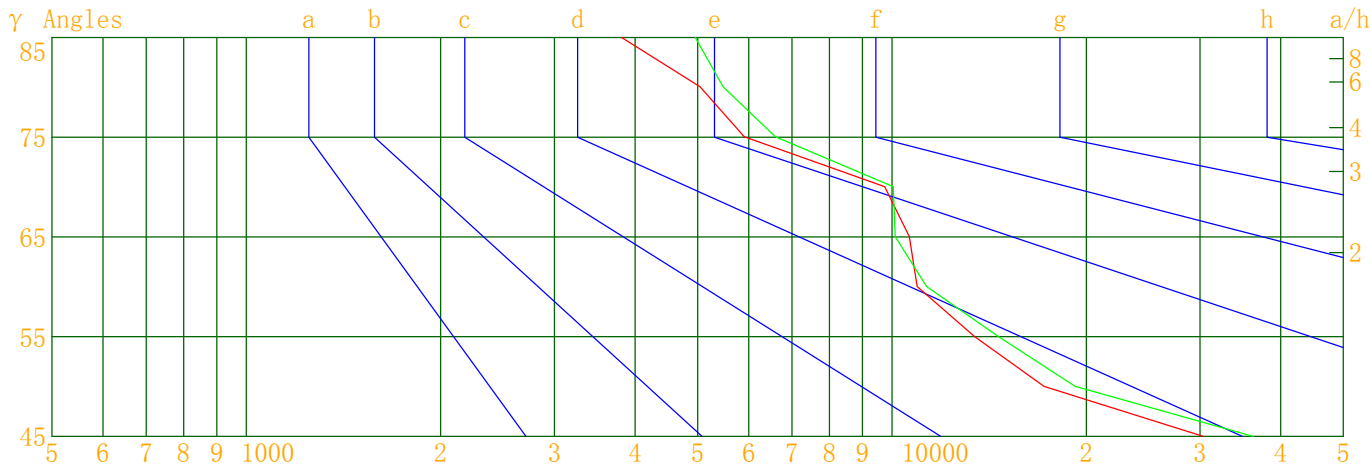
Glare Grade Table

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	30338	17202	13424	10942	10635	9743	5905	5045	3814
C90	36244	19226	14614	11312	10119	10047	6596	5476	4958

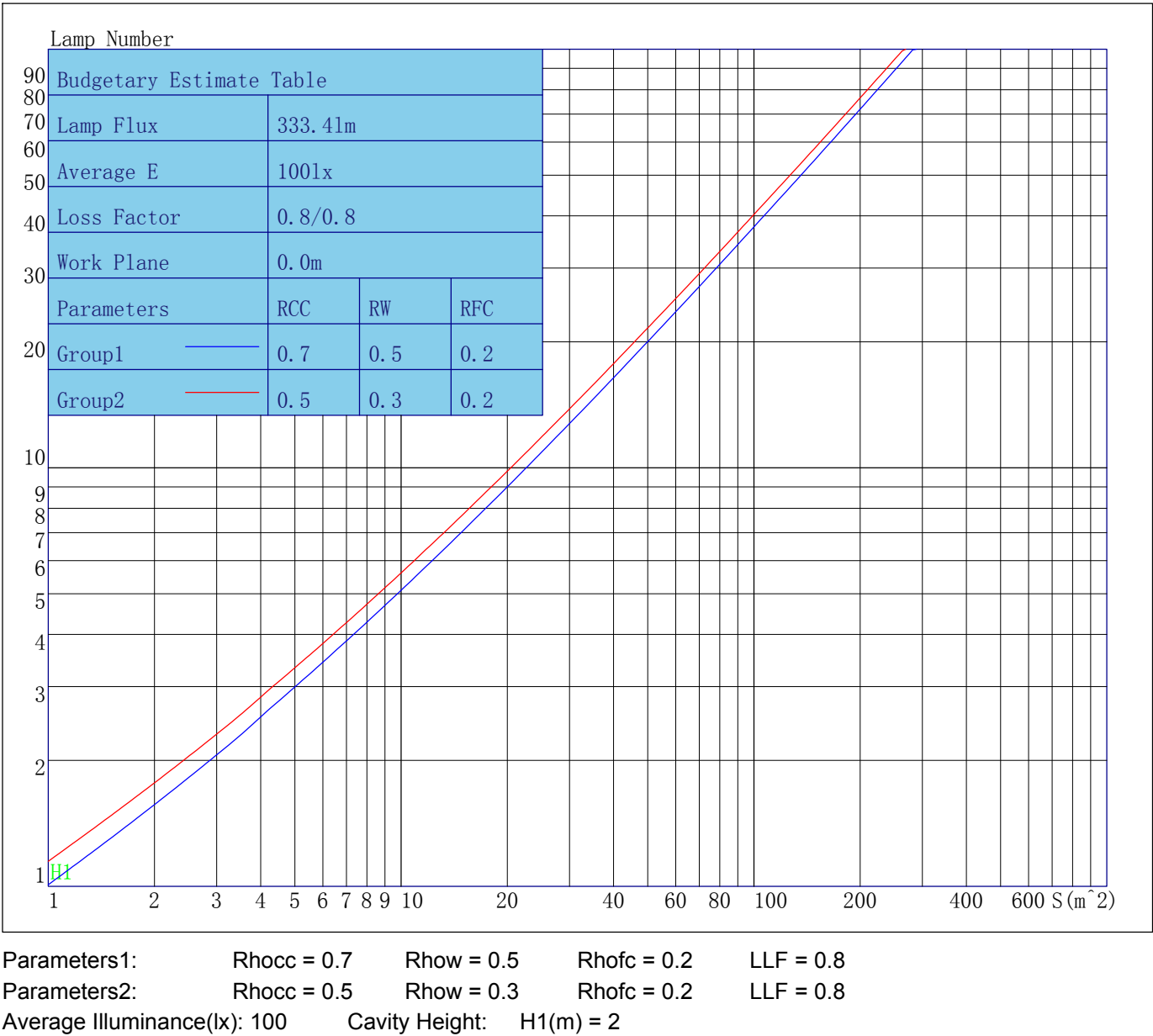
Luminance Limiting Curve



Luminous Size: Length(m)=0.038 Width(m)=0.038 Height(m)=0.000 Area(m^2)=0.001444
Luminous Type: Without Luminous Side
Luminous Curves: C0-C180 Color: C90-C270 Color:

Indoor Budgetary Estimate Table

Lum. Name: TR09-06-DW-04 1800-3000K 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: 2022/08/29



Indoor Coefficient of Utilization Table

Lum. Name: TR09-06-DW-04 1800-3000K 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: 2022/08/29

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	111	111	111	106	106	106	102	102	102	100
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92
2	107	102	98	94	105	100	96	93	97	93	91	94	91	89	91	89	87	85
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	85	83	80	79
4	96	88	82	78	94	87	81	77	84	80	76	82	78	75	80	77	74	73
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67
6	86	77	70	66	84	76	70	66	74	69	65	73	68	65	71	67	64	63
7	82	72	66	61	80	71	65	61	70	65	61	69	64	60	67	63	60	59
8	78	68	61	57	76	67	61	57	66	61	57	65	60	57	64	59	56	55
9	74	64	58	54	73	63	57	53	62	57	53	61	56	53	60	56	53	51
10	70	60	54	50	69	60	54	50	59	54	50	58	53	50	57	53	50	48

Unified Glare Rating Table

Lum. Name: TR09-06-DW-04 1800-3000K 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: 2022/08/29

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	21.5	22.6	21.9	22.9	23.2	21.8	22.9	22.2	23.2	23.5
	21.7	22.6	22.0	22.9	23.3	21.9	22.8	22.3	23.2	23.6
	21.7	22.5	22.1	22.9	23.3	21.9	22.8	22.4	23.1	23.5
	21.6	22.4	22.0	22.8	23.2	21.9	22.7	22.3	23.1	23.5
	21.6	22.3	22.0	22.7	23.1	21.9	22.6	22.3	23.0	23.4
	21.5	22.2	22.0	22.6	23.1	21.8	22.5	22.3	22.9	23.4
X=4H Y=2H	21.4	22.2	21.8	22.6	23.0	21.7	22.5	22.1	22.9	23.3
	21.6	22.3	22.0	22.7	23.1	21.9	22.6	22.3	23.0	23.4
	21.6	22.2	22.1	22.7	23.1	21.9	22.5	22.4	22.9	23.4
	21.6	22.1	22.1	22.6	23.1	21.9	22.4	22.4	22.9	23.4
	21.6	22.1	22.1	22.5	23.0	21.9	22.4	22.4	22.8	23.3
	21.5	22.0	22.0	22.5	23.0	21.9	22.3	22.4	22.8	23.3
X=8H Y=4H	21.5	22.0	22.0	22.5	23.0	21.8	22.3	22.3	22.7	23.2
	21.5	21.9	22.0	22.4	23.0	21.8	22.2	22.3	22.7	23.2
	21.5	21.8	22.1	22.4	22.9	21.8	22.1	22.3	22.7	23.2
	21.5	21.8	22.0	22.3	22.9	21.8	22.1	22.3	22.6	23.2
X=12H Y=4H	21.5	21.9	22.0	22.4	22.9	21.7	22.2	22.2	22.7	23.1
	21.5	21.8	22.0	22.3	22.9	21.8	22.1	22.3	22.6	23.1
	21.5	21.8	22.0	22.3	22.9	21.8	22.1	22.3	22.6	23.2
Variations with the objverver position at spacings										
S=1.0H	0.5/-0.6					0.6/-0.6				
S=1.5H	1.5/-1.4					1.3/-1.3				
S=2.0H	1.8/-2.6					1.6/-2.3				
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	371.95	371.95	371.95	371.95
γ 5.0	371.65	370.95	361.48	356.87
γ 10.0	354.32	354.16	332.67	329.72
γ 15.0	331.34	331.13	295.93	291.34
γ 20.0	298.27	296.28	248.68	245.79
γ 25.0	254.21	252.32	194.48	193.54
γ 30.0	197.22	200.03	136.97	135.62
γ 35.0	136.55	142.11	82.50	81.23
γ 40.0	73.97	81.19	35.82	37.39
γ 45.0	30.98	37.01	16.16	16.30
γ 50.0	15.97	17.84	10.56	10.62
γ 55.0	11.12	12.10	7.47	6.97
γ 60.0	7.90	8.17	6.18	5.83
γ 65.0	6.49	6.18	5.67	4.94
γ 70.0	4.81	4.96	3.14	2.78
γ 75.0	2.21	2.46	1.33	1.07
γ 80.0	1.26	1.37	0.38	0.25
γ 85.0	0.48	0.62	0.19	0.00
γ 90.0	0.29	0.32	0.00	0.00
γ 95.0	0.18	0.36	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	0.03
γ 115.0	0.00	0.00	0.10	0.00
γ 120.0	0.00	0.00	0.00	0.00
γ 125.0	0.00	0.00	0.03	0.02
γ 130.0	0.00	0.01	0.29	0.09
γ 135.0	0.00	0.11	0.27	0.09
γ 140.0	0.01	0.32	0.68	0.30
γ 145.0	0.39	0.41	0.88	0.50
γ 150.0	0.87	0.56	1.01	1.02
γ 155.0	0.90	0.93	1.11	0.88
γ 160.0	1.31	1.30	1.53	1.24
γ 165.0	1.18	1.30	1.27	1.23
γ 170.0	1.34	1.91	1.42	1.07
γ 175.0	1.68	1.60	1.60	1.27
γ 180.0	1.60	1.60	1.60	1.60