

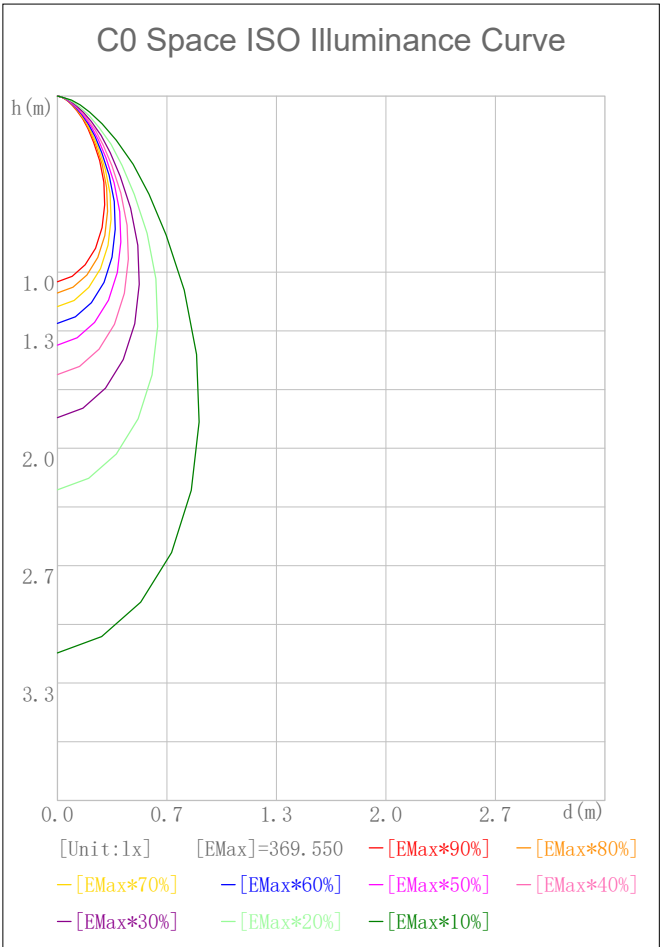
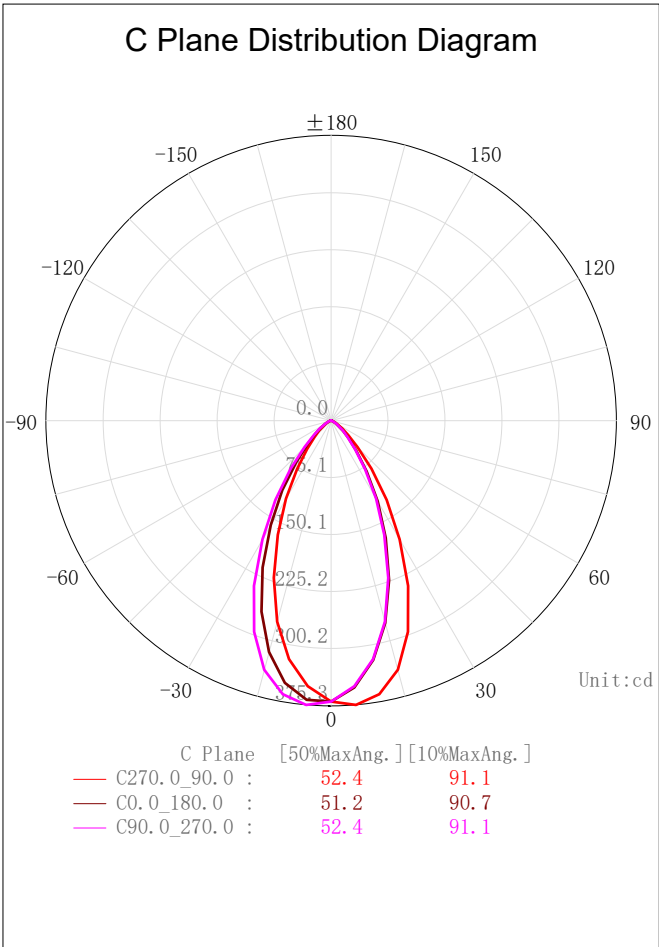
Indoor Luminaire Photometric Data

Description Information

Luminary Name: TR09-06-DW-02 1800-3000K RA90 50D		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(%):

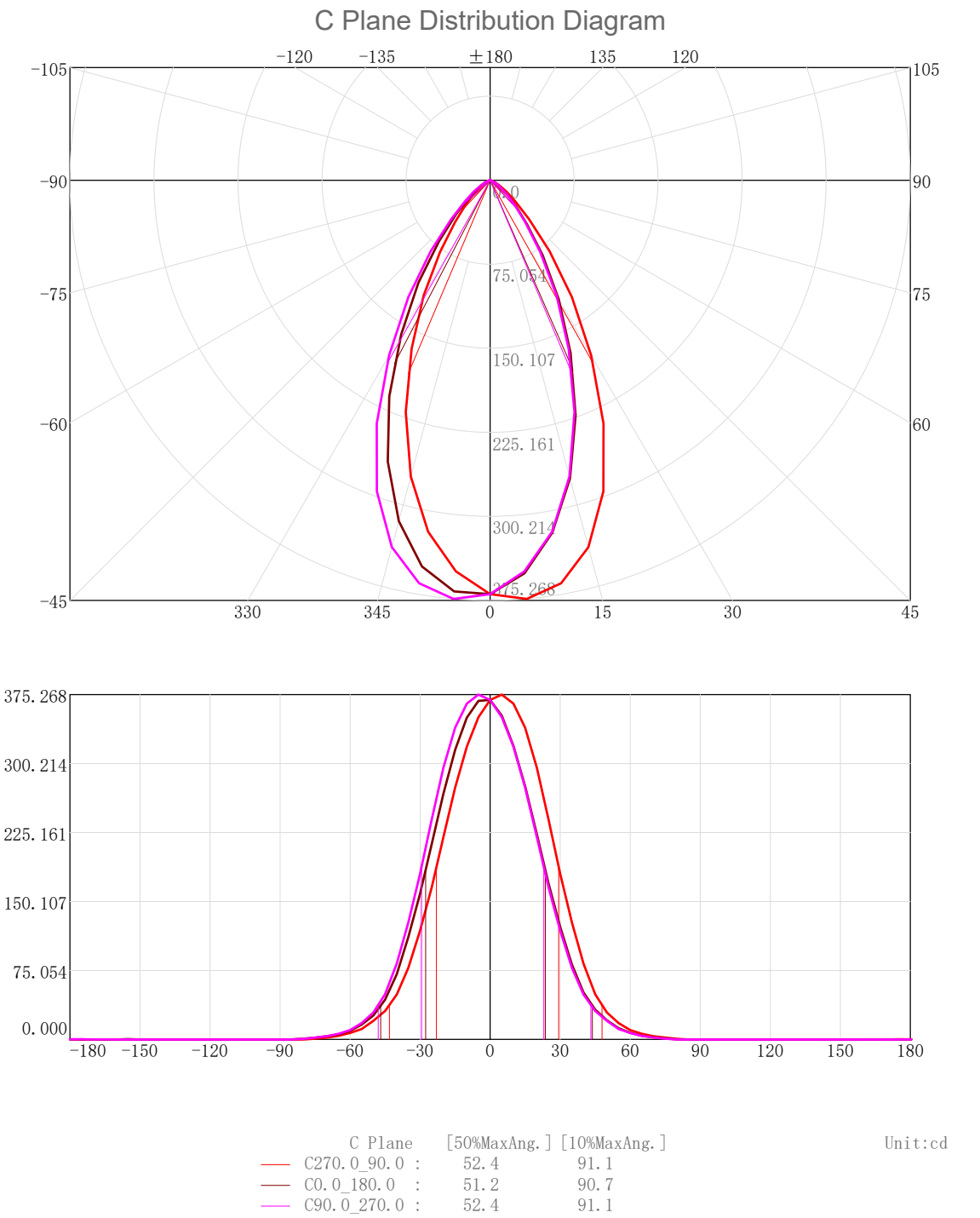
Character Parameter

Lamp Speciality Parameter		Luminaire Speciality Parameter	
Rated Flux(lm): 323.370	Luminary Flux(lm): 323.373	Field Angle(10%Imax): 91.1(°)	
Rated Power(W):	Luminary Efficiency: 100.00%	Down Lumens&Percent: 323.329lm 99.99%	
Rated Voltage(V):	Luminary EER(lm/W): 55.496	Up Lumens&Percent: 0.043lm 0.01%	
Tested Power(W): 5.827	Max. Candela(cd): 375.268	S/MH: C0_a180=0.788 C90_270=0.817	
Lamps' Inside: 1	Max Cand@Ang. (°): C=270.0 γ=5.0	CIE Type: Semi-Direct	
Tested Electrics (V, A, pf):239.9, 0.029, 0.891	Beam Angle(50%Imax): 52.4(°)	ErP Φ use(90°): 286.620lm	
Lamp Size (W*L*H):0.039m*-0.039m*0.000m	Left=-23.0°, Right=29.4°	IRF(%): 269.991	



2D Plane Light Intensity Distribution Curve

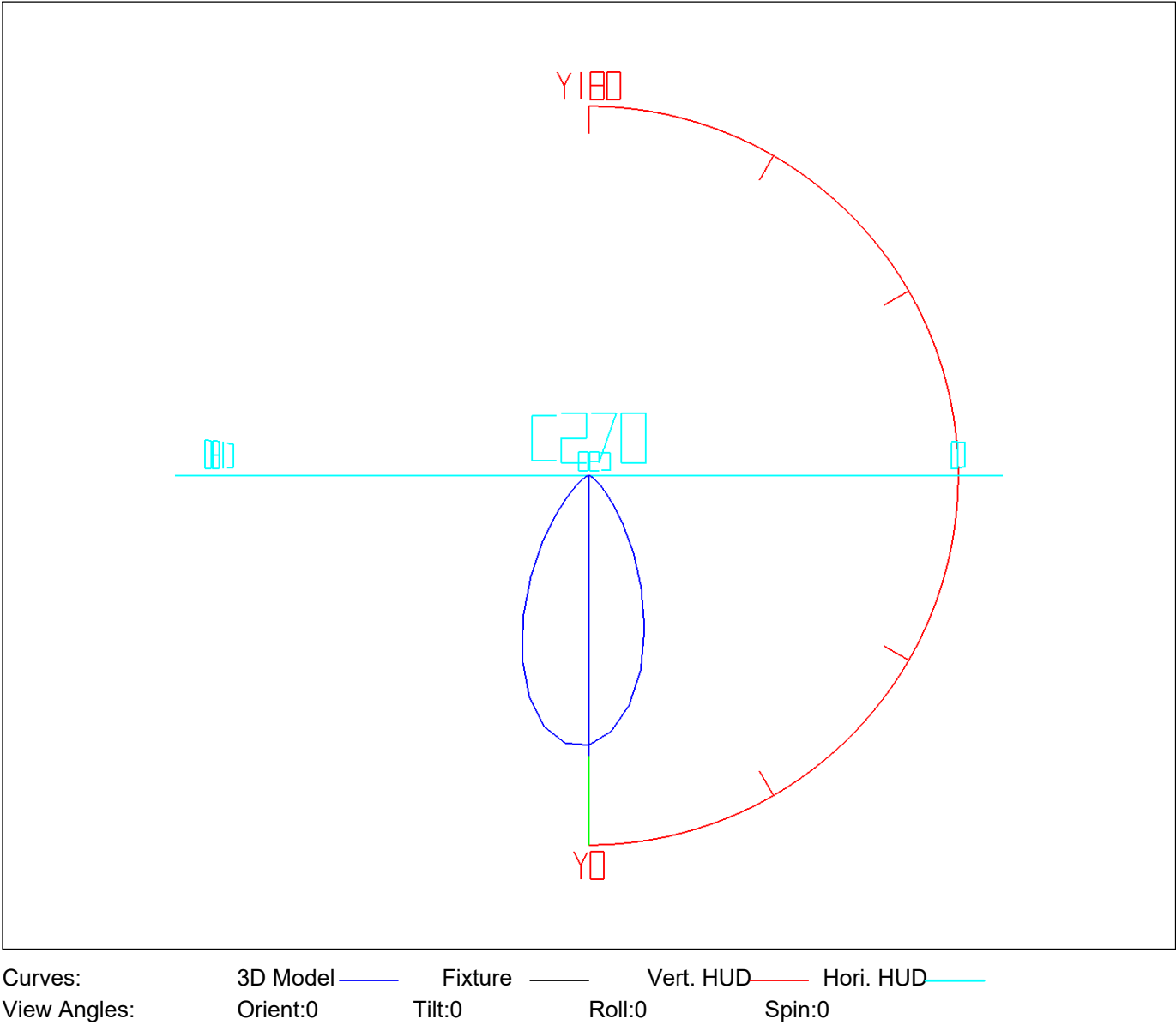
Lum. Name:TR09-06-DW-02 1800-3000K RA90 50D	Lum. Catalog:	Test ID:01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date: 2022/08/18



3D Light Intensity Distribution Modal

Lum. Name:TR09-06-DW-02 1800-3000K RA90 50D	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

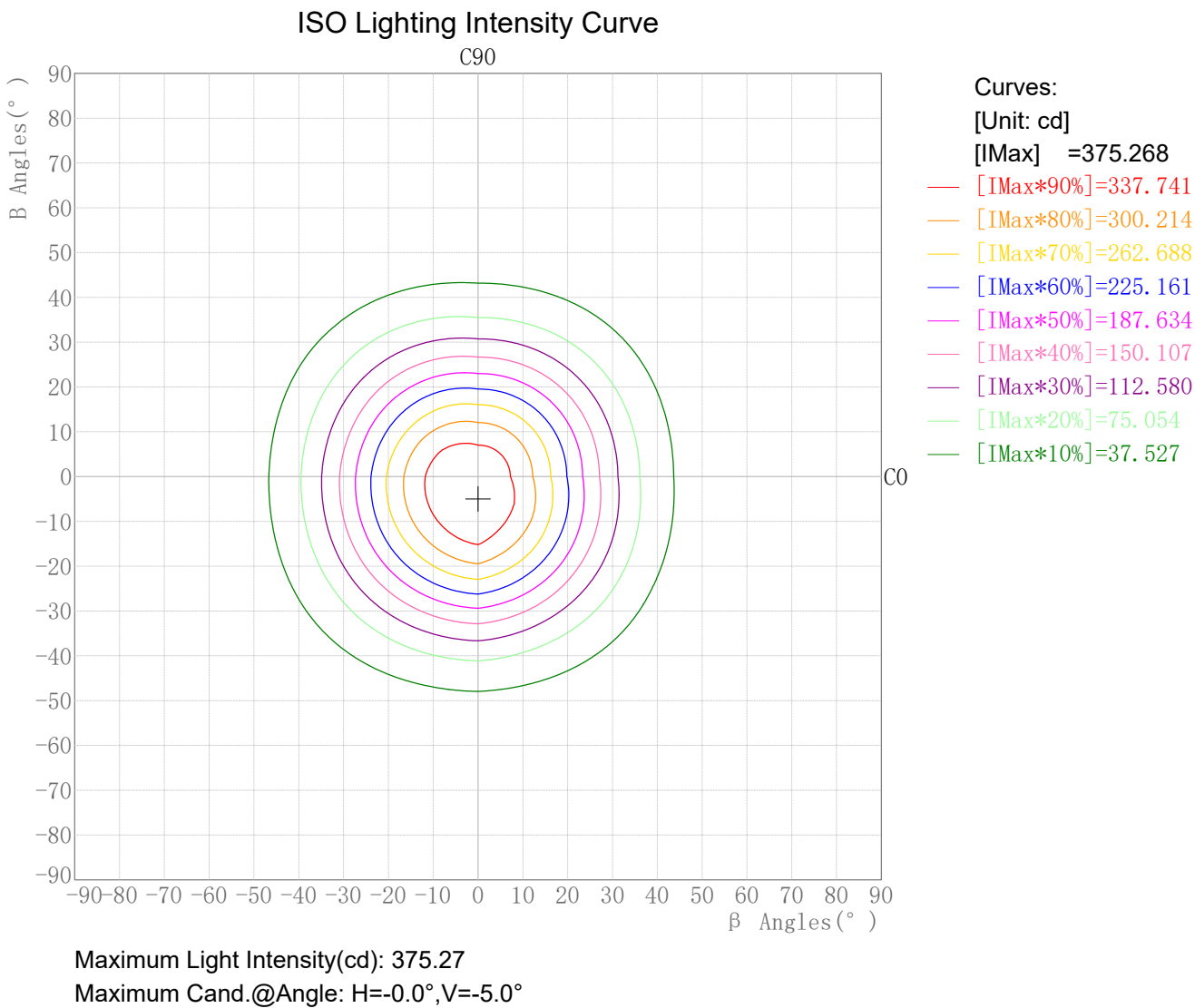


Zonal Flux Tabulation

Zone(γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-5.0	8.74	8.74	2.70	2.70
5.0-10.0	25.04	33.78	7.74	10.45
10.0-15.0	37.92	71.71	11.73	22.18
15.0-20.0	45.53	117.24	14.08	36.26
20.0-25.0	47.06	164.30	14.55	50.81
25.0-30.0	43.30	207.60	13.39	64.20
30.0-35.0	36.02	243.62	11.14	75.34
35.0-40.0	27.20	270.83	8.41	83.75
40.0-45.0	18.96	289.79	5.86	89.62
45.0-50.0	12.77	302.56	3.95	93.56
50.0-55.0	8.41	310.97	2.60	96.17
55.0-60.0	5.32	316.29	1.64	97.81
60.0-65.0	3.27	319.56	1.01	98.82
65.0-70.0	1.99	321.55	0.61	99.44
70.0-75.0	1.14	322.69	0.35	99.79
75.0-80.0	0.51	323.20	0.16	99.95
80.0-85.0	0.12	323.32	0.04	99.99
85.0-90.0	0.01	323.33	0.00	99.99
90.0-95.0	0.00	323.33	0.00	99.99
95.0-100.0	0.00	323.33	0.00	99.99
100.0-105.0	0.00	323.33	0.00	99.99
105.0-110.0	0.00	323.33	0.00	99.99
110.0-115.0	0.00	323.33	0.00	99.99
115.0-120.0	0.00	323.33	0.00	99.99
120.0-125.0	0.00	323.33	0.00	99.99
125.0-130.0	0.00	323.33	0.00	99.99
130.0-135.0	0.00	323.33	0.00	99.99
135.0-140.0	0.00	323.33	0.00	99.99
140.0-145.0	0.00	323.33	0.00	99.99
145.0-150.0	0.00	323.33	0.00	99.99
150.0-155.0	0.01	323.34	0.00	99.99
155.0-160.0	0.01	323.36	0.00	100.00
160.0-165.0	0.00	323.36	0.00	100.00
165.0-170.0	0.00	323.36	0.00	100.00
170.0-175.0	0.01	323.37	0.00	100.00
175.0-180.0	0.00	323.37	0.00	100.00

Rectangle ISO Lighting Intensity Diagram

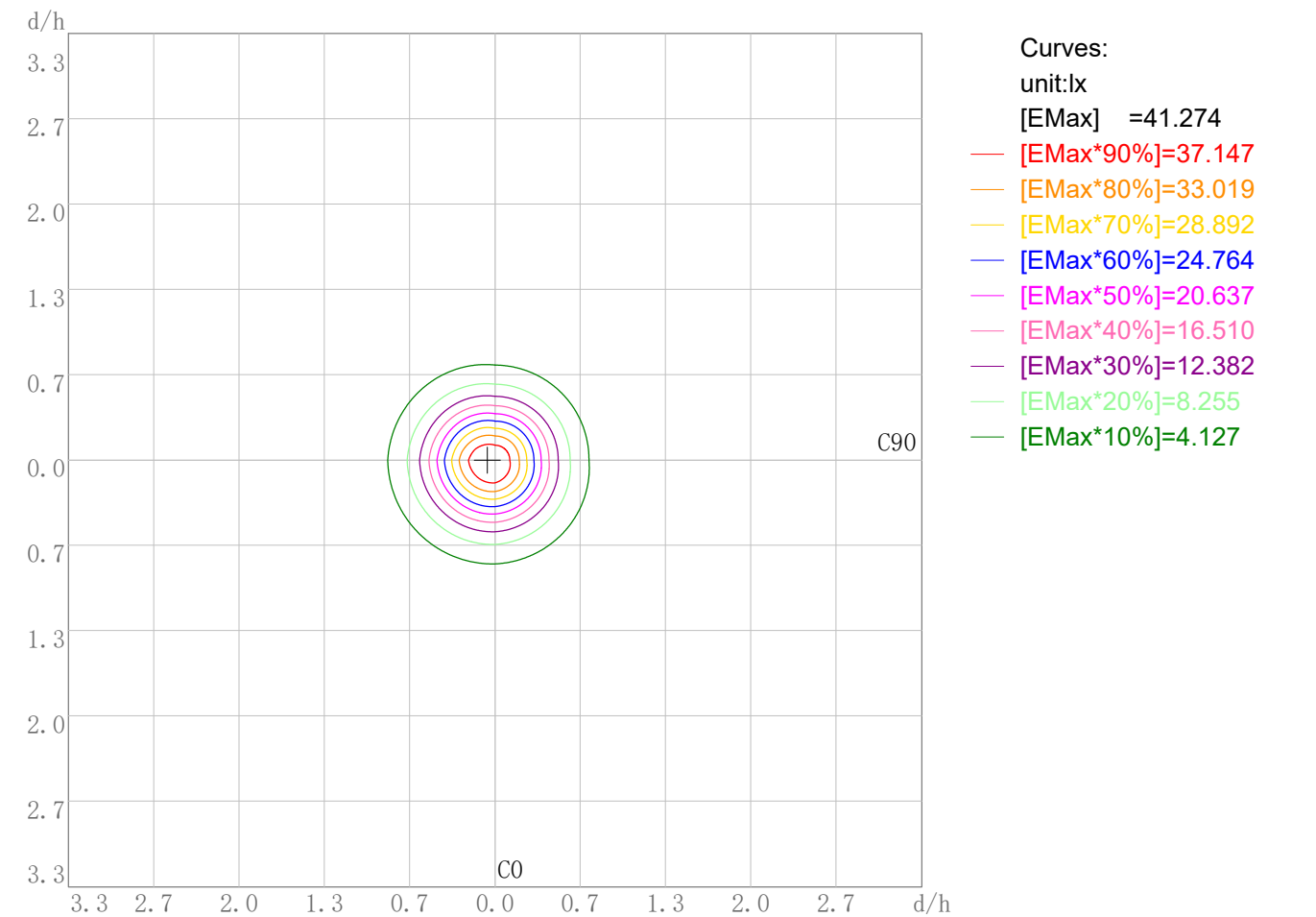
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Lamp Name:	Lamp Catelog:LED	Test Lab:Quality Department
Manufacture:Shenzhen Norming Lighting	Test Machine:GON-2000	Test Date:2022/08/18



Plane ISO-Illuminance Diagram

Lum. Name:TR09-06-DW-02 1800-3000K RA90 50D	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

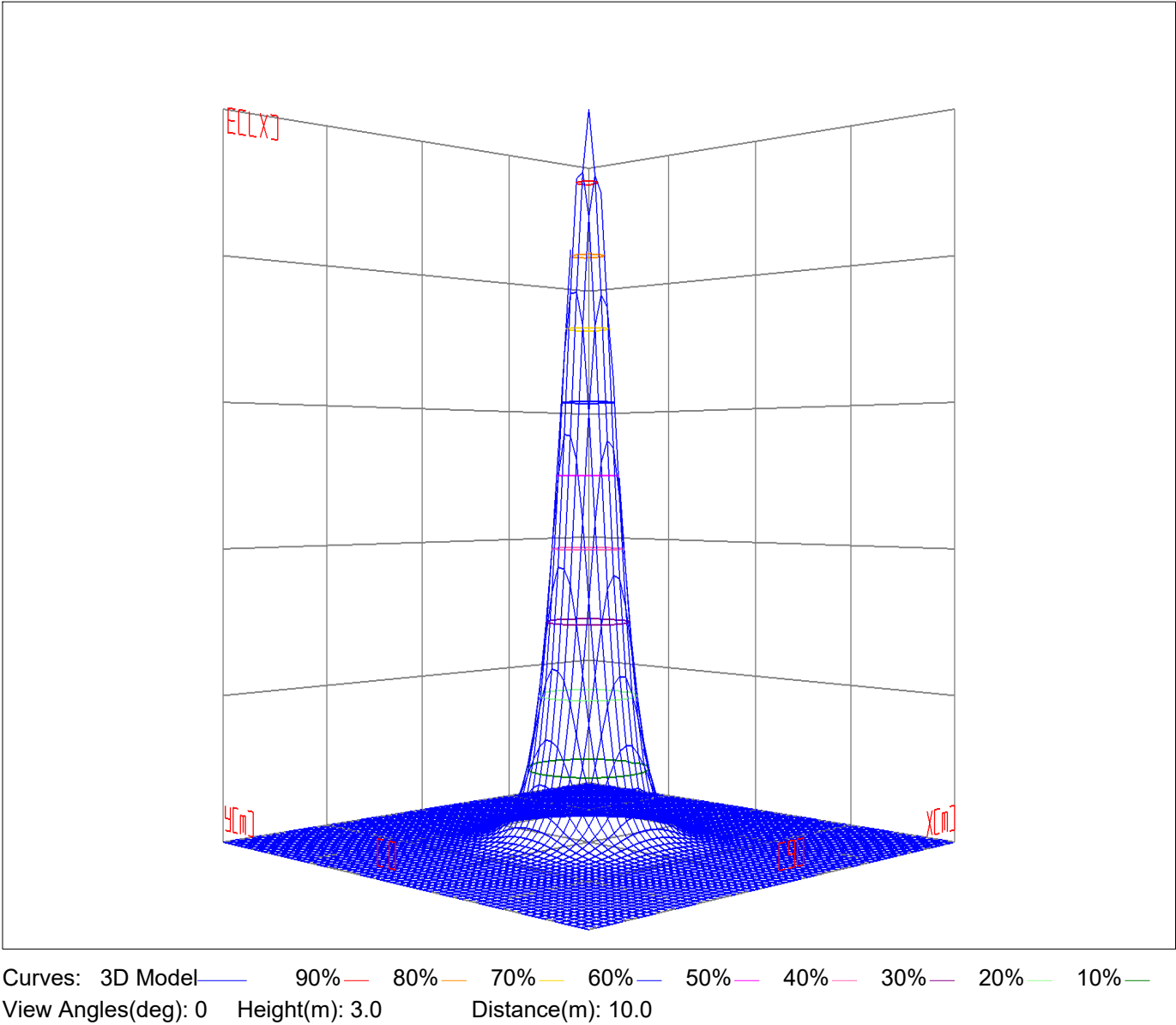


Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 41.27
Working Plane Maximum Illuminance Position(d/h):H-0.1 V-0.0

3D Plane ISO Illuminance Diagram

Lum. Name:TR09-06-DW-02 1800-3000K RA90 50D	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

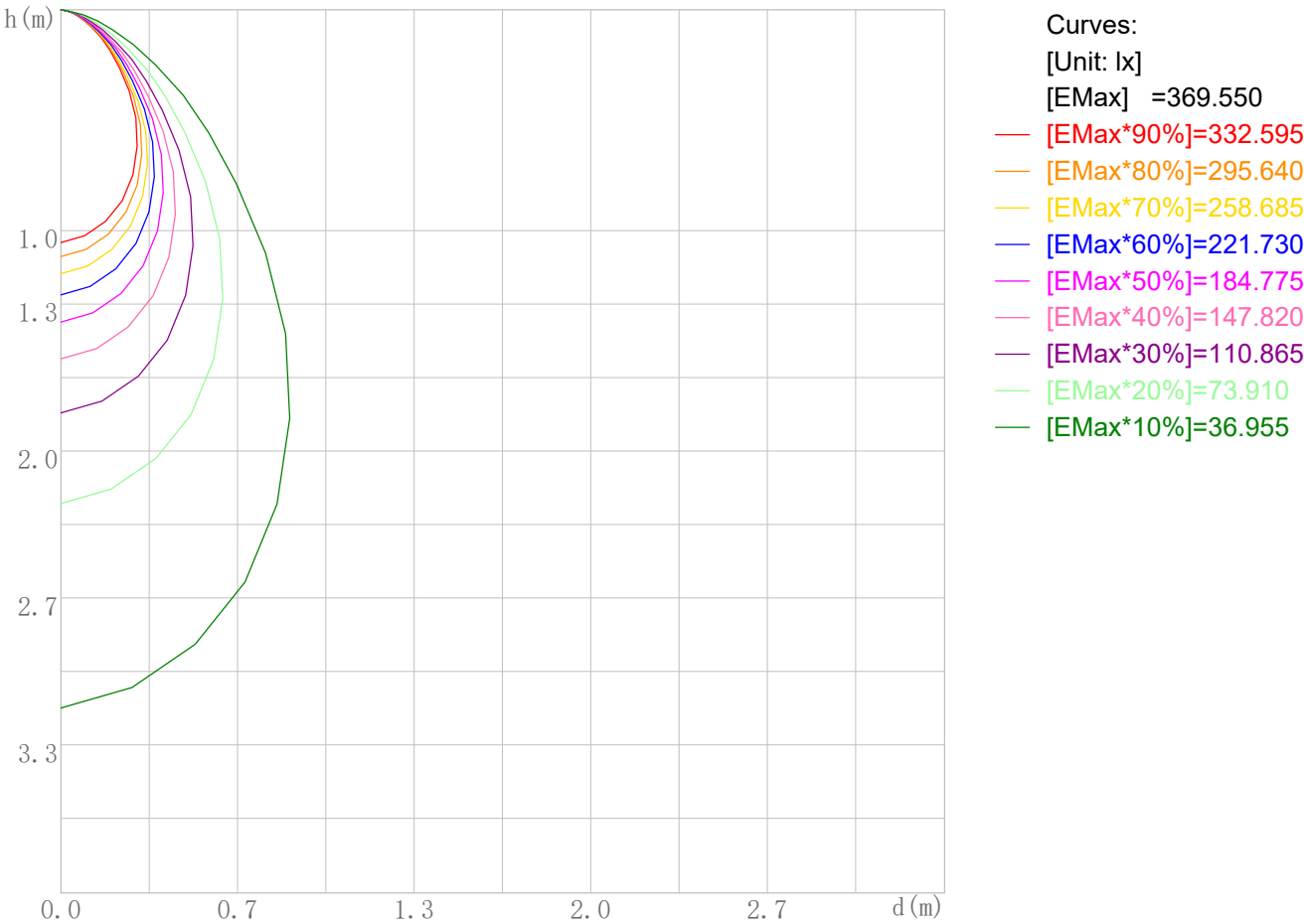
3D Plane Illuminance Modal



Space ISO Illuminance Diagram

Lum. Name:TR09-06-DW-02 1800-3000K RA90 50D	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

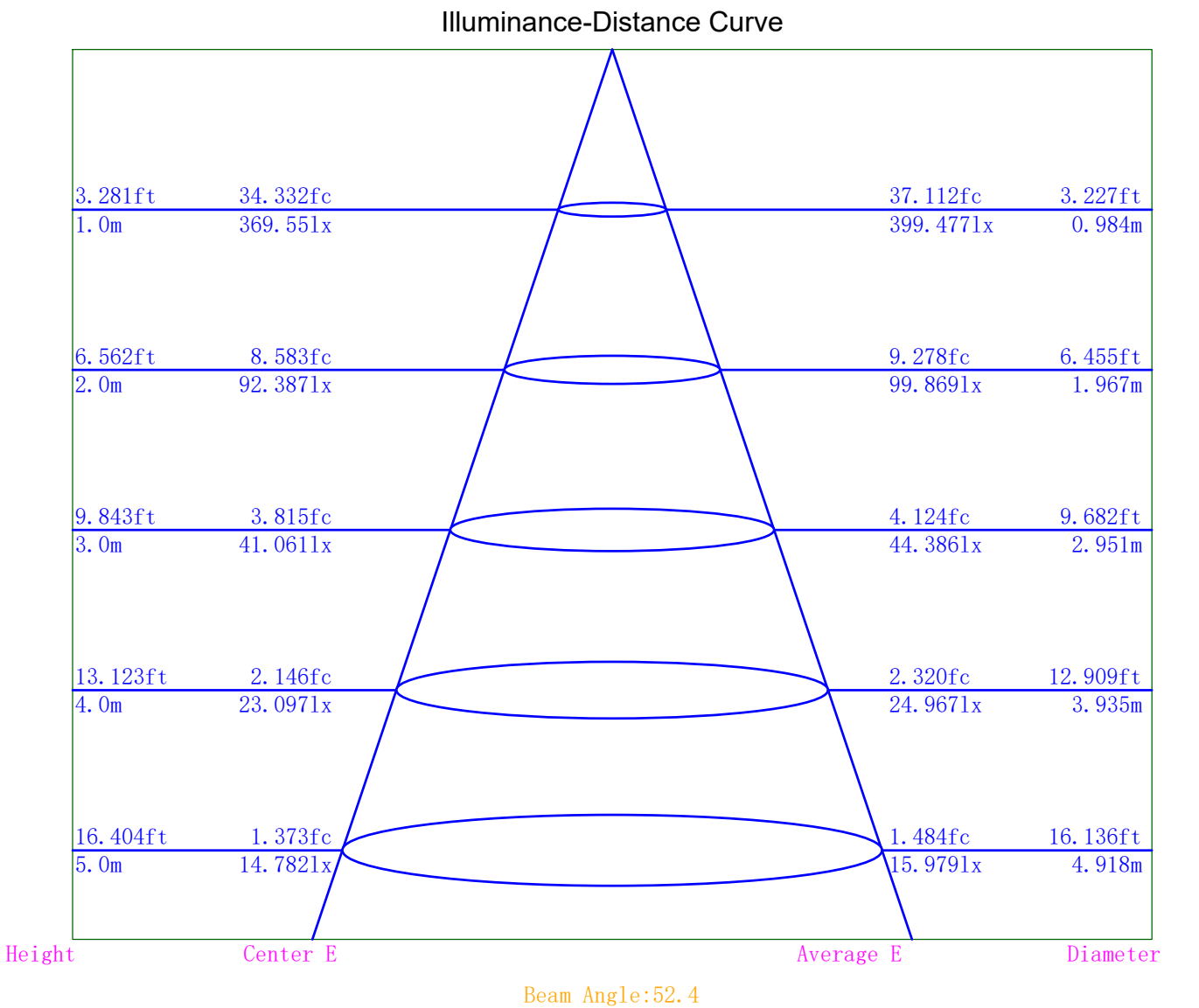
Space ISO Illuminance Curve



Space Plane Maximum Illuminance and @Angle:369.55lx,0.0deg
Plane Maximum Lighting Intensity and @Angle:369.550cd,0deg

Illuminance-Distance Diagram

Lum. Name:TR09-06-DW-02 1800-3000K RA90 50D	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:TR09-06-DW-02 1800-3000K RA90 50D	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

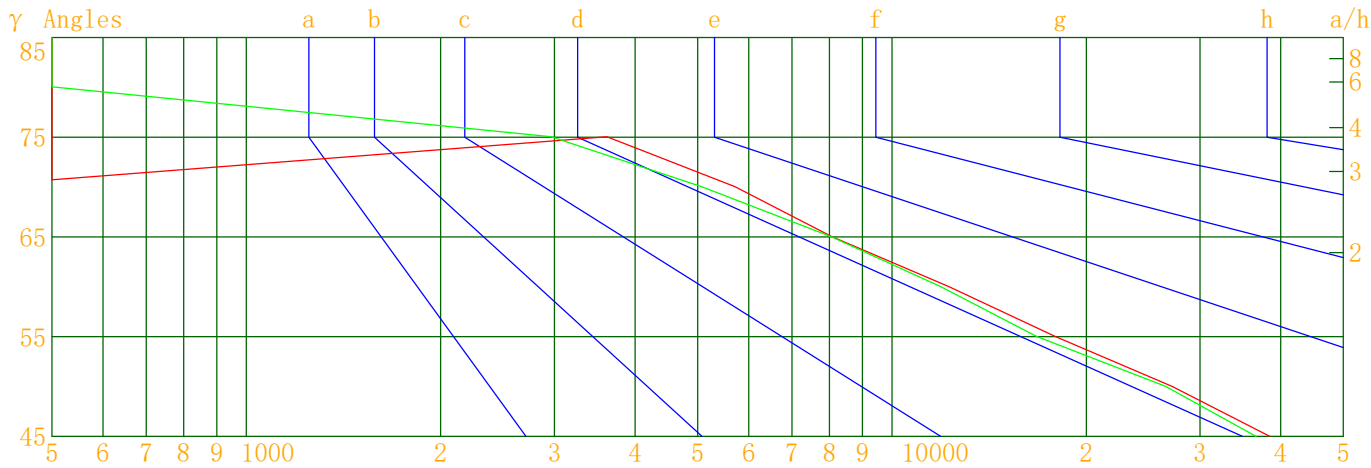
Glare Grade Table

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	38467	27167	17909	12244	8068	5713	3619	366	0
C90	36627	26542	16757	11894	8048	5071	2966	0	0

Luminance Limiting Curve



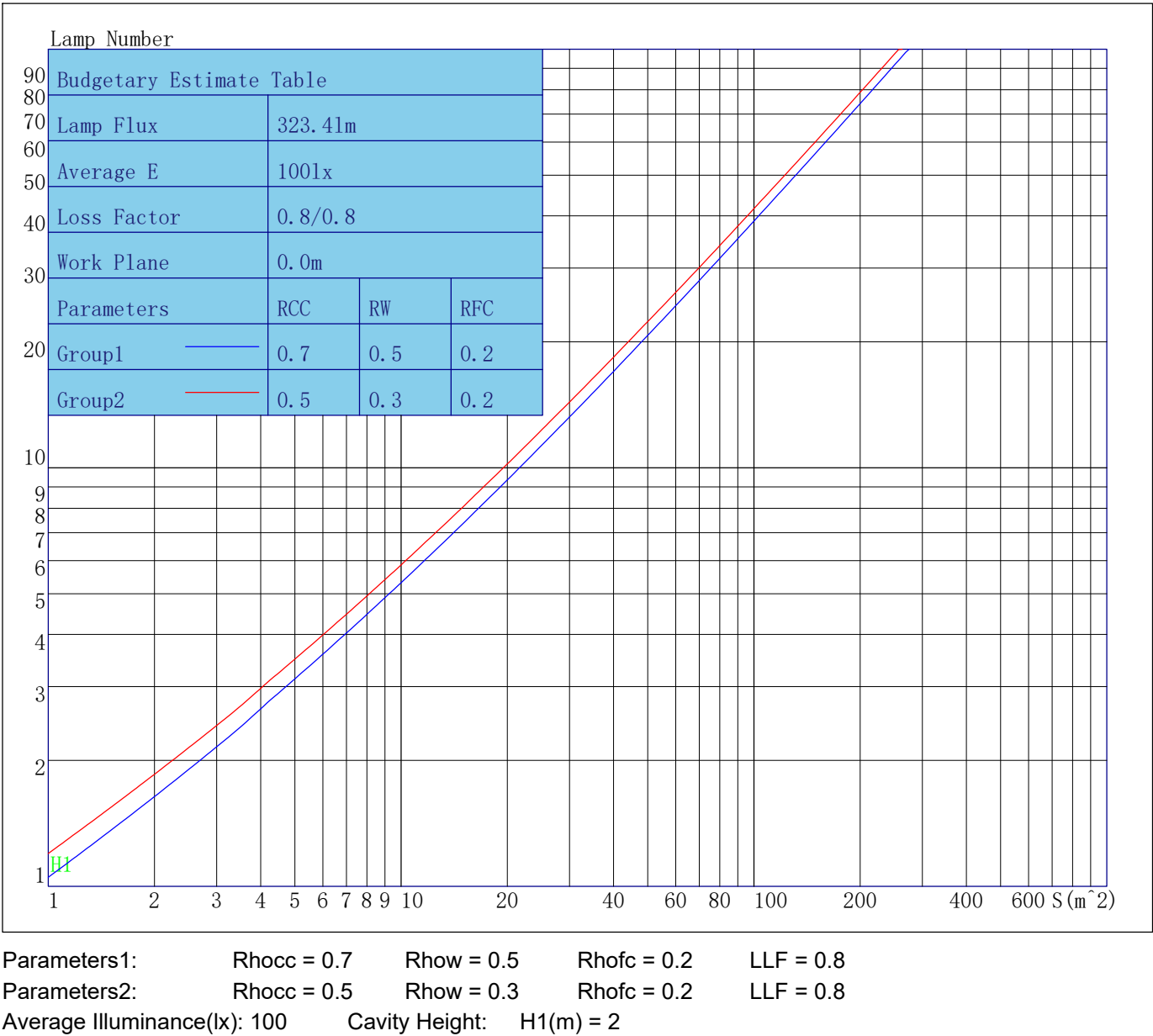
Luminous Size:Length(m)=-0.039Width(m)=-0.039Height(m)=0.000Area(m^2)=0.001195

Luminous Type:Without Luminous Side

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

Indoor Budgetary Estimate Table

Lum. Name:TR09-06-DW-02 1800-3000K RA90 50D	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:TR09-06-DW-02 1800-3000K RA90 50D	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	113	110	107	105	111	108	105	103	104	102	100	100	99	97	97	95	94	93
2	107	102	97	94	105	100	96	93	97	93	90	94	91	89	91	89	87	85
3	101	94	89	84	99	93	88	84	90	86	82	87	84	81	85	82	80	78
4	95	87	81	77	94	86	81	76	84	79	75	82	78	75	80	77	74	72
5	90	81	75	70	89	80	74	70	78	73	69	77	72	69	75	71	68	67
6	85	76	70	65	84	75	69	65	74	68	64	72	67	64	71	67	63	62
7	81	71	65	60	80	70	64	60	69	64	60	68	63	59	67	62	59	58
8	77	67	60	56	76	66	60	56	65	60	56	64	59	55	63	59	55	54
9	73	63	57	52	72	62	56	52	61	56	52	60	56	52	60	55	52	50
10	70	59	53	49	68	59	53	49	58	53	49	57	52	49	57	52	49	47

Unified Glare Rating Table

Lum. Name:TR09-06-DW-02 1800-3000K RA90 50D	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	21.0	22.1	21.4	22.4	22.7	20.7	21.8	21.0	22.1	22.4
	21.0	22.0	21.4	22.3	22.7	20.6	21.6	21.0	22.0	22.3
	20.9	21.8	21.3	22.2	22.6	20.6	21.5	21.0	21.9	22.2
	20.8	21.7	21.2	22.0	22.4	20.5	21.3	20.9	21.7	22.1
	20.8	21.6	21.2	22.0	22.4	20.4	21.2	20.9	21.6	22.0
	20.7	21.5	21.2	21.9	22.3	20.4	21.1	20.8	21.5	22.0
X=4H Y=2H	20.9	21.8	21.3	22.2	22.6	20.6	21.5	21.0	21.9	22.3
	20.9	21.7	21.4	22.1	22.5	20.6	21.4	21.0	21.8	22.2
	20.9	21.6	21.3	22.0	22.4	20.5	21.2	21.0	21.6	22.1
	20.8	21.4	21.3	21.8	22.3	20.5	21.0	20.9	21.5	22.0
	20.7	21.3	21.2	21.7	22.2	20.4	20.9	20.9	21.4	21.8
	20.7	21.1	21.2	21.6	22.1	20.3	20.8	20.8	21.3	21.8
X=8H Y=4H	20.8	21.3	21.2	21.7	22.2	20.4	21.0	20.9	21.4	21.9
	20.7	21.1	21.2	21.6	22.1	20.3	20.7	20.8	21.2	21.8
	20.6	21.0	21.1	21.5	22.0	20.2	20.6	20.8	21.2	21.6
	20.5	20.9	21.0	21.4	21.9	20.2	20.5	20.7	21.0	21.6
X=12H Y=4H	20.7	21.2	21.2	21.7	22.1	20.4	20.8	20.9	21.3	21.8
	20.6	21.0	21.1	21.4	22.0	20.2	20.6	20.8	21.1	21.7
	20.5	20.9	21.0	21.4	21.9	20.2	20.5	20.7	21.0	21.6
Variations with the objerver position at spacings										
S=1.0H	1.9/-2.8					2.0/-3.2				
S=1.5H	2.5/-3.9					2.6/-4.2				
S=2.0H	3.1/-4.8					3.3/-5.4				
Reduced UGR Table:										
Nordic Standard Table:	BK0					BK0				
Correction Value	0.3					0.3				

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

IES Indoor Report

Photometric Filename:TR09-06-DW-02 1800-3000K RA90 50D.IES

Candela Tabulation

V/H	C0.0	C90.0	C180.0	C270.0
γ 0.0	369.55	369.55	369.55	369.55
γ 5.0	352.21	350.58	368.50	375.27
γ 10.0	319.51	318.61	350.20	365.41
γ 15.0	275.47	273.89	315.01	339.17
γ 20.0	223.26	220.17	267.24	295.60
γ 25.0	170.05	165.81	213.03	239.69
γ 30.0	122.50	118.51	158.65	180.36
γ 35.0	81.65	77.96	111.56	127.36
γ 40.0	51.15	48.88	71.03	82.60
γ 45.0	32.49	30.94	43.31	49.26
γ 50.0	20.86	20.38	26.13	29.35
γ 55.0	12.27	11.48	16.37	17.93
γ 60.0	7.31	7.10	9.35	10.20
γ 65.0	4.07	4.06	5.54	6.22
γ 70.0	2.33	2.07	3.55	3.56
γ 75.0	1.12	0.92	1.89	2.03
γ 80.0	0.08	0.00	0.87	0.72
γ 85.0	0.00	0.00	0.09	0.00
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	0.00	0.00	0.00	0.00
γ 145.0	0.00	0.00	0.00	0.00
γ 150.0	0.00	0.00	0.00	0.00
γ 155.0	0.00	0.00	0.42	0.00
γ 160.0	0.00	0.00	0.00	0.06
γ 165.0	0.00	0.00	0.01	0.14
γ 170.0	0.14	0.00	0.00	0.00
γ 175.0	0.00	0.02	0.18	0.29
γ 180.0	0.13	0.13	0.13	0.13