

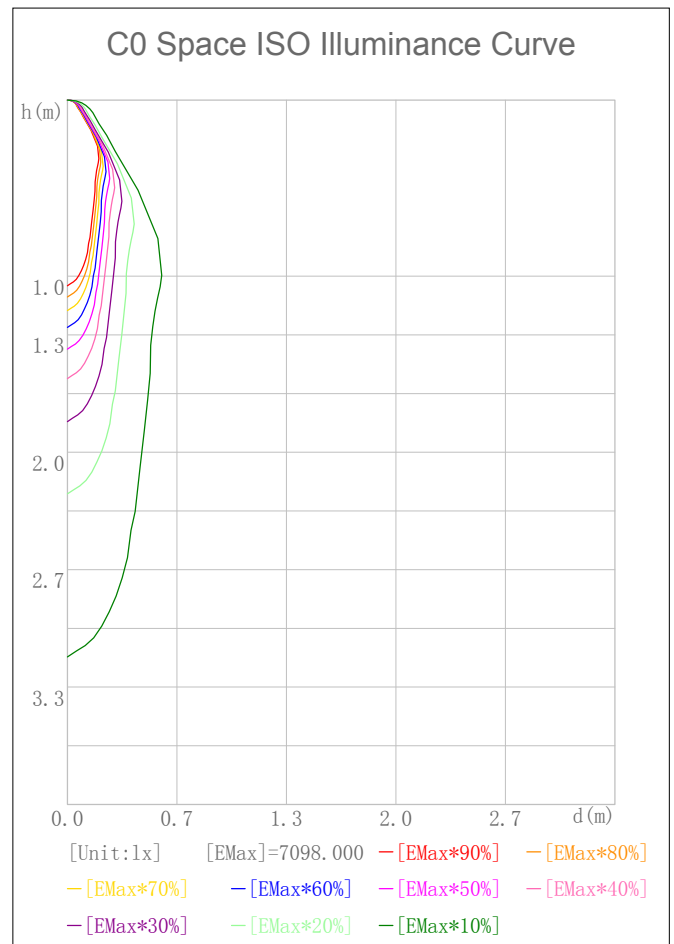
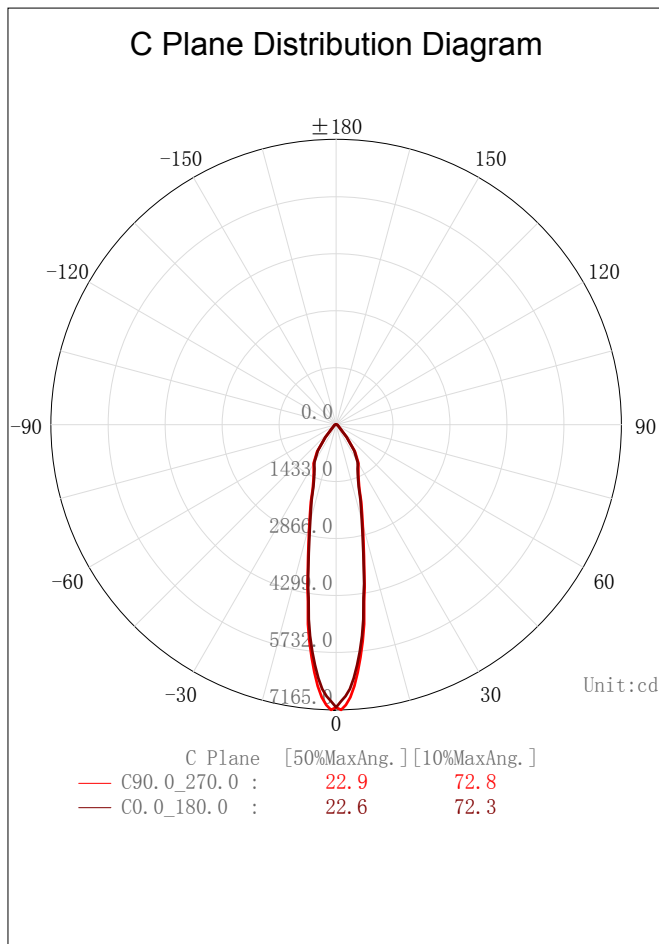
Indoor Luminaire Photometric Data

Description Information

Luminaire Name: LED LUMINAIRE		Lum. Catalog: LG-9112A 24° 9W	Test ID: IESNA:LM-79-08
Lamp Name:		Lamp Catalog: LED	Test Date: 4/20/2021
Manufacture: Light and Green		Shld. Ang(°):	Test Machine:GON-2000
Test Lab: LIGHT LABORATORY, INC. (www.lightlaboratory.com)		Frequency (Hz):	Lamp CCT(K): Ra:
Lum. Size (W*L*H): 0.150m*0.810m*0.000m		Lum. Area (m2): 0.122	Lum. W (kg): 0.000
Test System: C, γ	Test Step: C=5.0 γ =1.0	Temp. (°C): 25	Humidity(%):

Character Parameter

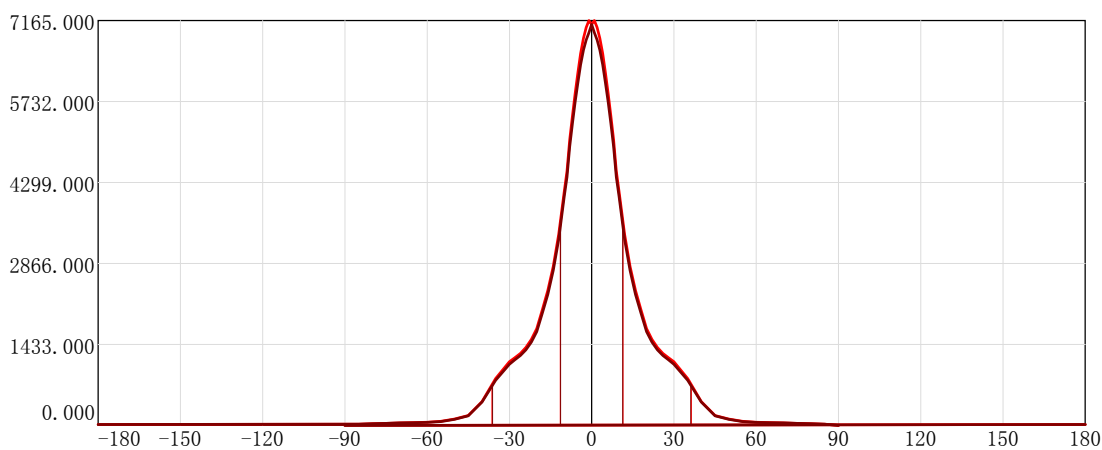
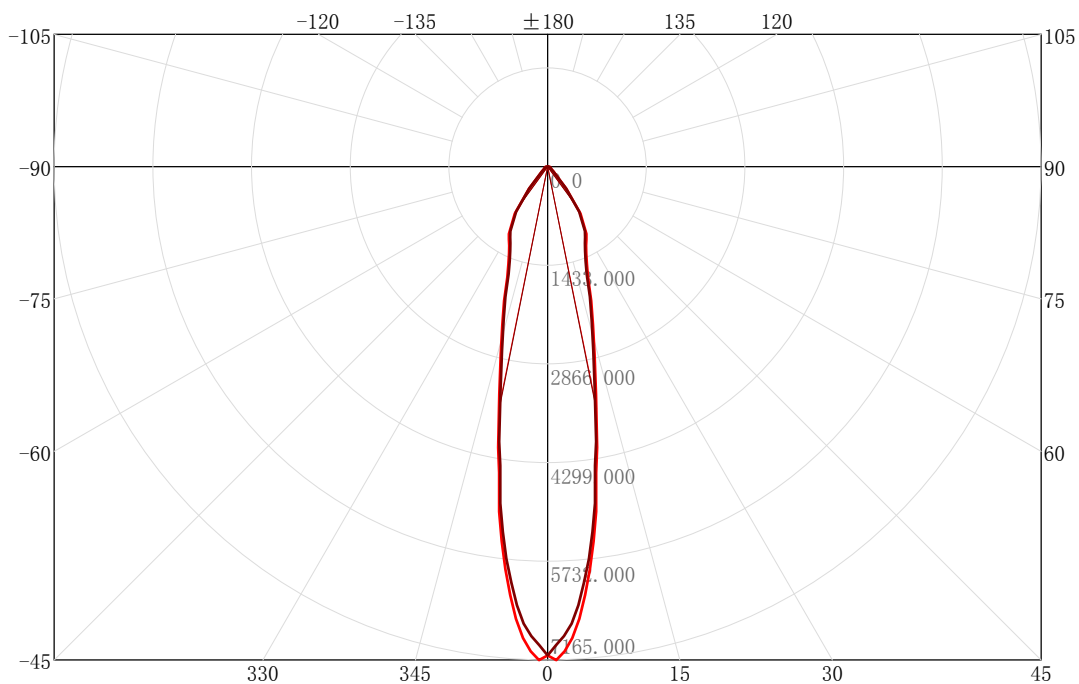
Lamp Speciality Parameter	Luminaire Speciality Parameter	
Rated Flux(lm): 2695.709	Luminaire Flux(lm): 2695.709	Field Angle(10%Imax): 72.8(°)
Rated Power(W):	Luminaire Efficiency: 100.00%	Down Lumens&Percent: 2695.709lm 100.00%
Rated Voltage(V):	Luminaire EER(lm/W): 79.778	Up Lumens&Percent: 0.000lm 0.00%
Tested Power(W): 33.790	Max. Candela(cd): 7165.000	S/MH: C0_a180=0.382 C90_270=0.390
Lamps' Inside: 1	Max Cand@Ang. (°): C=90.0 γ =1.0	CIE Type: Semi-Direct
Tested Electrics (V, A, pf): 240.0, 0.056	Beam Angle (50%Imax): 22.9(°)	ErP ϕ use(90°): 2457.636lm
Lamp Size (W*L*H): 0.150m*0.810m*0.000m	Left=-11.5°, Right=11.5°	IRF(%): 584.541



2D Plane Light Intensity Distribution Curve

Lum. Name: LED LUMINAIRE	Lum. Catalog: LG-9112A 24° 9W	Test ID: IESNA:LM-79-08
Lamp Name:	Lamp Catalog: LED	Test Lab: LIGHT LABORATORY, INC. (www.lig
Manufacture: Light and Green	Test Machine:GON-2000	Test Date: 4/20/2021

C Plane Distribution Diagram

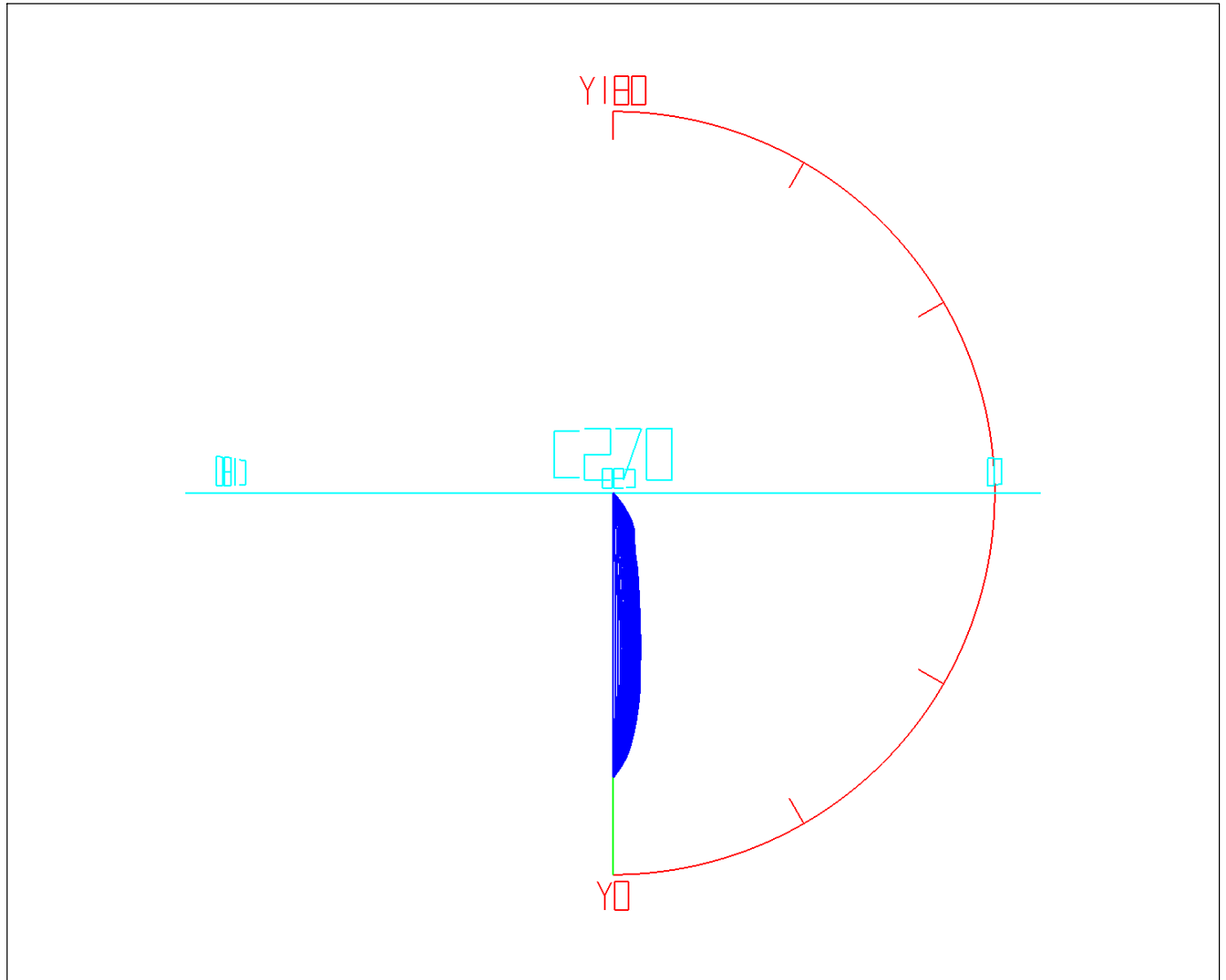


C Plane [50%MaxAng.] [10%MaxAng.] Unit:cd
 — C90.0_270.0 : 22.9 72.8
 — C0.0_180.0 : 22.6 72.3

3D Light Intensity Distribution Modal

Lum. Name: LED LUMINAIRE	Lum. Catalog: LG-9112A 24° 9W	Test ID: IESNA:LM-79-08
Lamp Name:	Lamp Catalog: LED	Test Lab: LIGHT LABORATORY, INC. (www.lig
Manufacture: Light and Green	Test Machine:GON-2000	Test Date: 4/20/2021

3D Light Intensity Distribution Modal



Curves: 3D Model ——— Fixture ——— Vert. HUD ——— Hori. HUD ———
 View Angles: Orient:0 Tilt:0 Roll:0 Spin:0

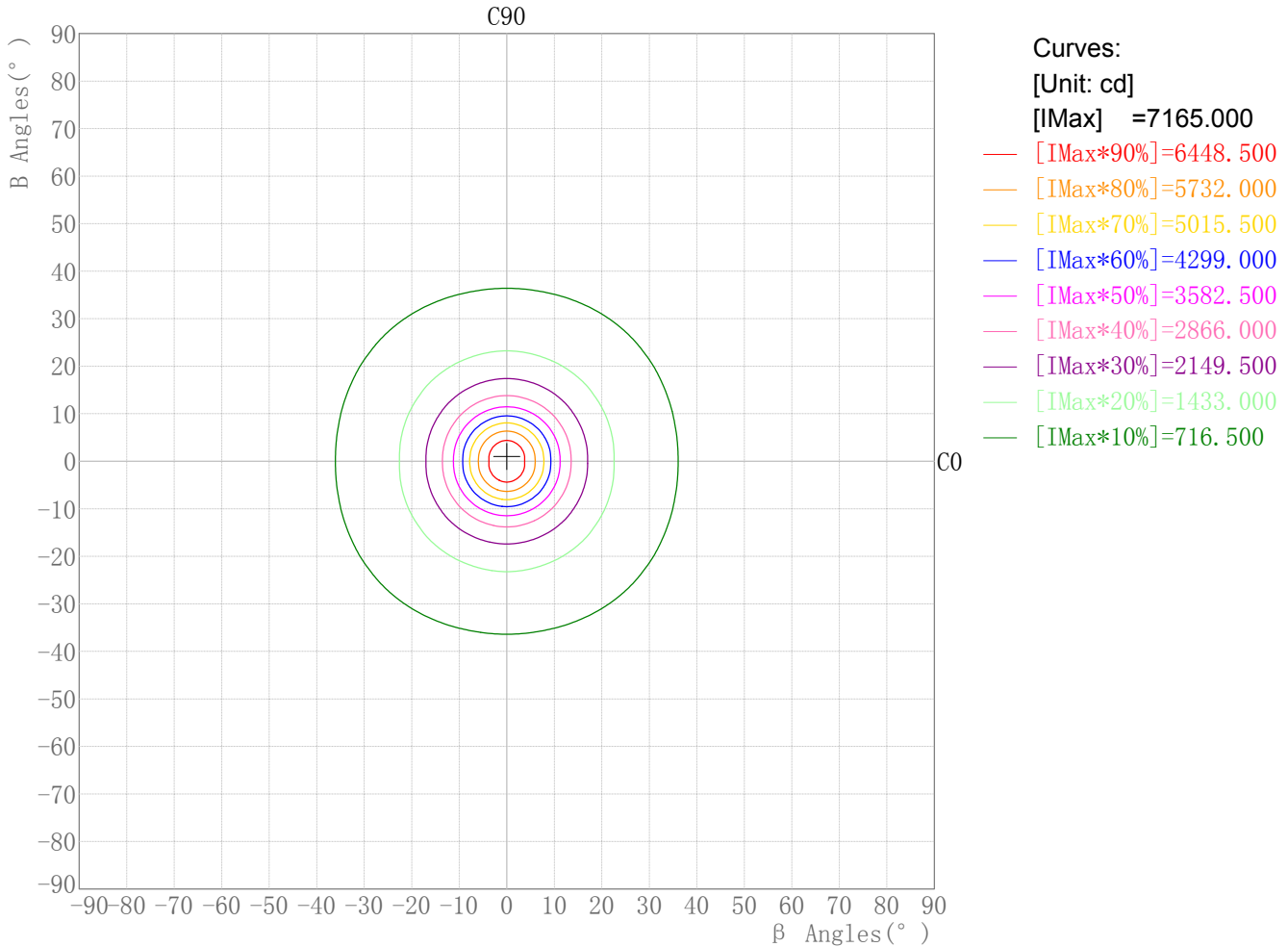
Zonal Flux Tabulation

Zone (γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-1.0	6.78	6.78	0.25	0.25
1.0-2.0	20.11	26.89	0.75	1.00
2.0-3.0	32.77	59.66	1.22	2.21
3.0-4.0	44.36	104.02	1.65	3.86
4.0-5.0	54.44	158.46	2.02	5.88
5.0-6.0	62.91	221.37	2.33	8.21
6.0-7.0	69.68	291.05	2.58	10.80
7.0-8.0	74.55	365.60	2.77	13.56
8.0-9.0	76.63	442.23	2.84	16.41
9.0-10.0	77.48	519.72	2.87	19.28
10.0-12.0	155.82	675.54	5.78	25.06
12.0-14.0	151.01	826.55	5.60	30.66
14.0-16.0	145.92	972.47	5.41	36.07
16.0-18.0	140.48	1112.95	5.21	41.29
18.0-20.0	132.56	1245.51	4.92	46.20
20.0-22.0	125.38	1370.89	4.65	50.85
22.0-24.0	122.58	1493.47	4.55	55.40
24.0-26.0	121.33	1614.80	4.50	59.90
26.0-28.0	121.34	1736.14	4.50	64.40
28.0-30.0	121.58	1857.71	4.51	68.91
30.0-35.0	283.33	2141.04	10.51	79.42
35.0-40.0	206.40	2347.44	7.66	87.08
40.0-45.0	110.19	2457.64	4.09	91.17
45.0-50.0	57.74	2515.38	2.14	93.31
50.0-55.0	39.58	2554.96	1.47	94.78
55.0-60.0	29.48	2584.44	1.09	95.87
60.0-65.0	25.64	2610.08	0.95	96.82
65.0-70.0	23.96	2634.04	0.89	97.71
70.0-75.0	21.72	2655.76	0.81	98.52
75.0-80.0	18.71	2674.47	0.69	99.21
80.0-85.0	14.94	2689.41	0.55	99.77
85.0-90.0	6.30	2695.71	0.23	100.00

Rectangle ISO Lighting Intensity Diagram

Lum. Name: LED LUMINAIRE	Lum. Catalog: LG-9112A 24° 9W	Test ID: IESNA:LM-79-08
Lamp Name:	Lamp Catalog: LED	Test Lab: LIGHT LABORATORY, INC. (www.lig
Manufacture: Light and Green	Test Machine:GON-2000	Test Date: 4/20/2021

ISO Lighting Intensity Curve

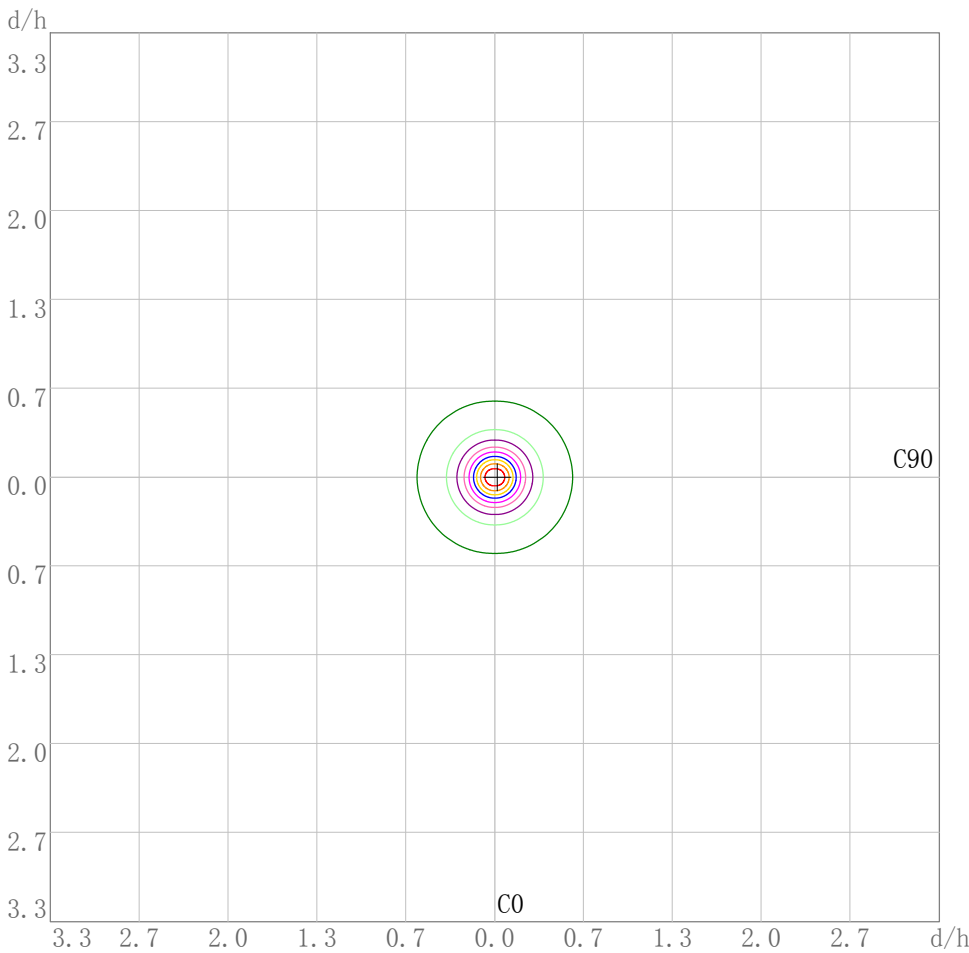


Maximum Light Intensity(cd): 7165.00
 Maximum Cand.@Angle: H=0.0°,V=1.0°

Plane ISO-Illuminance Diagram

Lum. Name: LED LUMINAIRE	Lum. Catalog: LG-9112A 24° 9W	Test ID: IESNA:LM-79-08
Lamp Name:	Lamp Catalog: LED	Test Lab: LIGHT LABORATORY, INC. (www.lig
Manufacture: Light and Green	Test Machine:GON-2000	Test Date: 4/20/2021

Plane ISO-Illuminance Curve



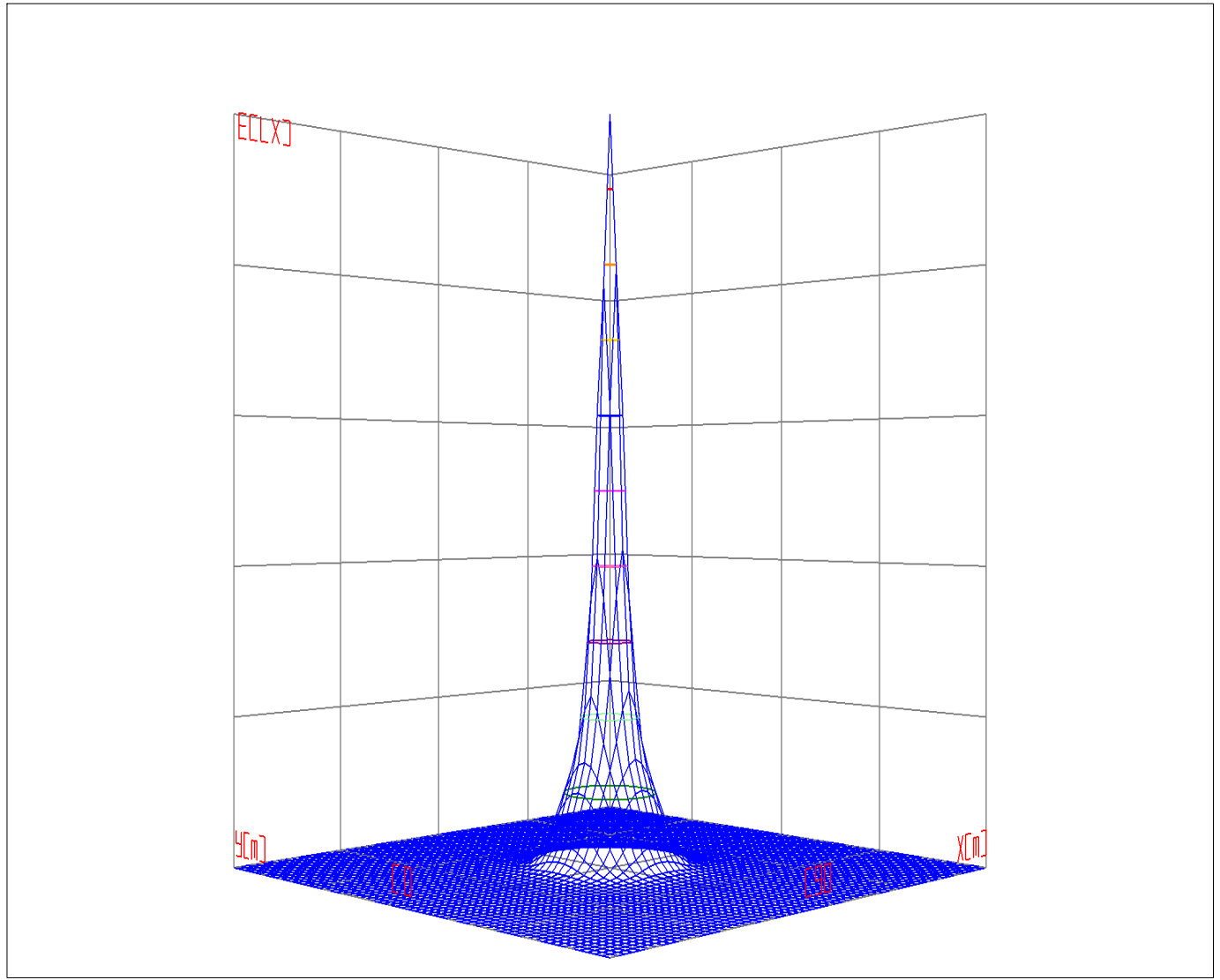
- Curves:
unit:lx
[EMax] =795.747
- [EMax*90%]=716.173
 - [EMax*80%]=636.598
 - [EMax*70%]=557.023
 - [EMax*60%]=477.448
 - [EMax*50%]=397.874
 - [EMax*40%]=318.299
 - [EMax*30%]=238.724
 - [EMax*20%]=159.149
 - [EMax*10%]=79.575

Working Plane Luminaire Mounting Height(m): 3.00
 Working Plane Maximum Illuminance(lx): 795.75
 Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

3D Plane ISO Illuminance Diagram

Lum. Name: LED LUMINAIRE	Lum. Catalog: LG-9112A 24° 9W	Test ID: IESNA:LM-79-08
Lamp Name:	Lamp Catalog: LED	Test Lab: LIGHT LABORATORY, INC. (www.lig
Manufacture: Light and Green	Test Machine:GON-2000	Test Date: 4/20/2021

3D Plane Illuminance Modal

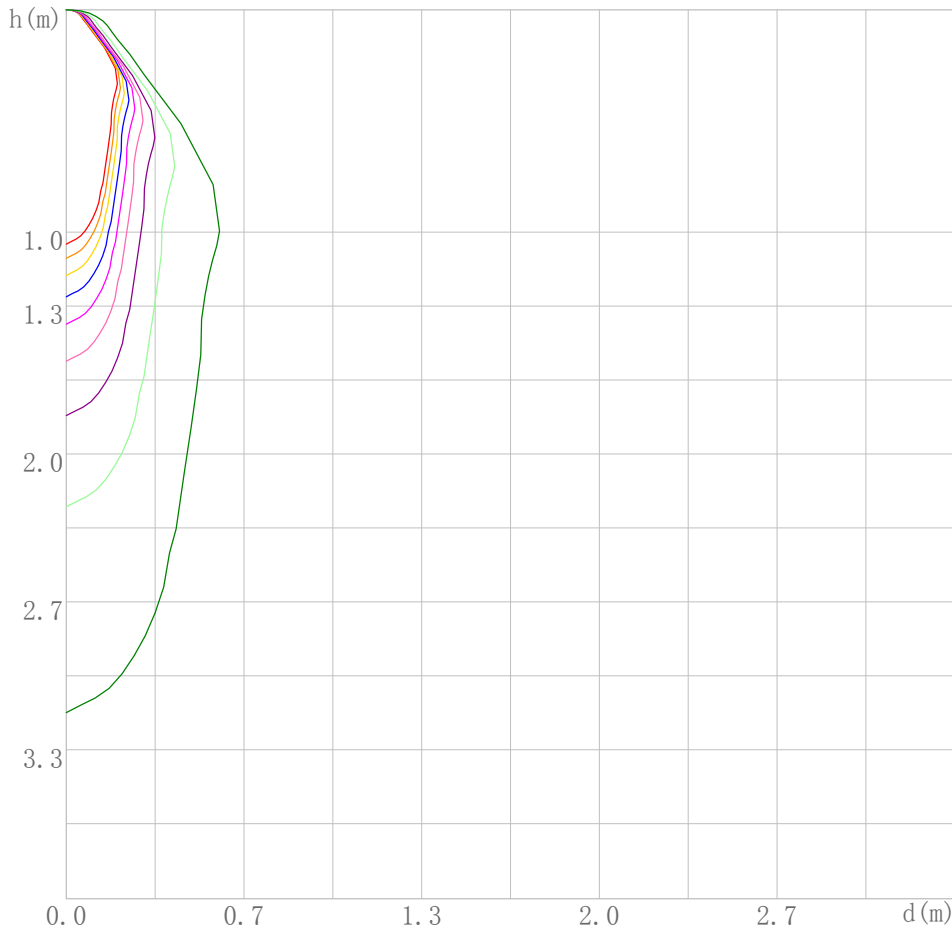


Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —
 View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

Space ISO Illuminance Diagram

Lum. Name: LED LUMINAIRE	Lum. Catalog: LG-9112A 24° 9W	Test ID: IESNA:LM-79-08
Lamp Name:	Lamp Catalog: LED	Test Lab: LIGHT LABORATORY, INC. (www.lig
Manufacture: Light and Green	Test Machine:GON-2000	Test Date: 4/20/2021

Space ISO Illuminance Curve



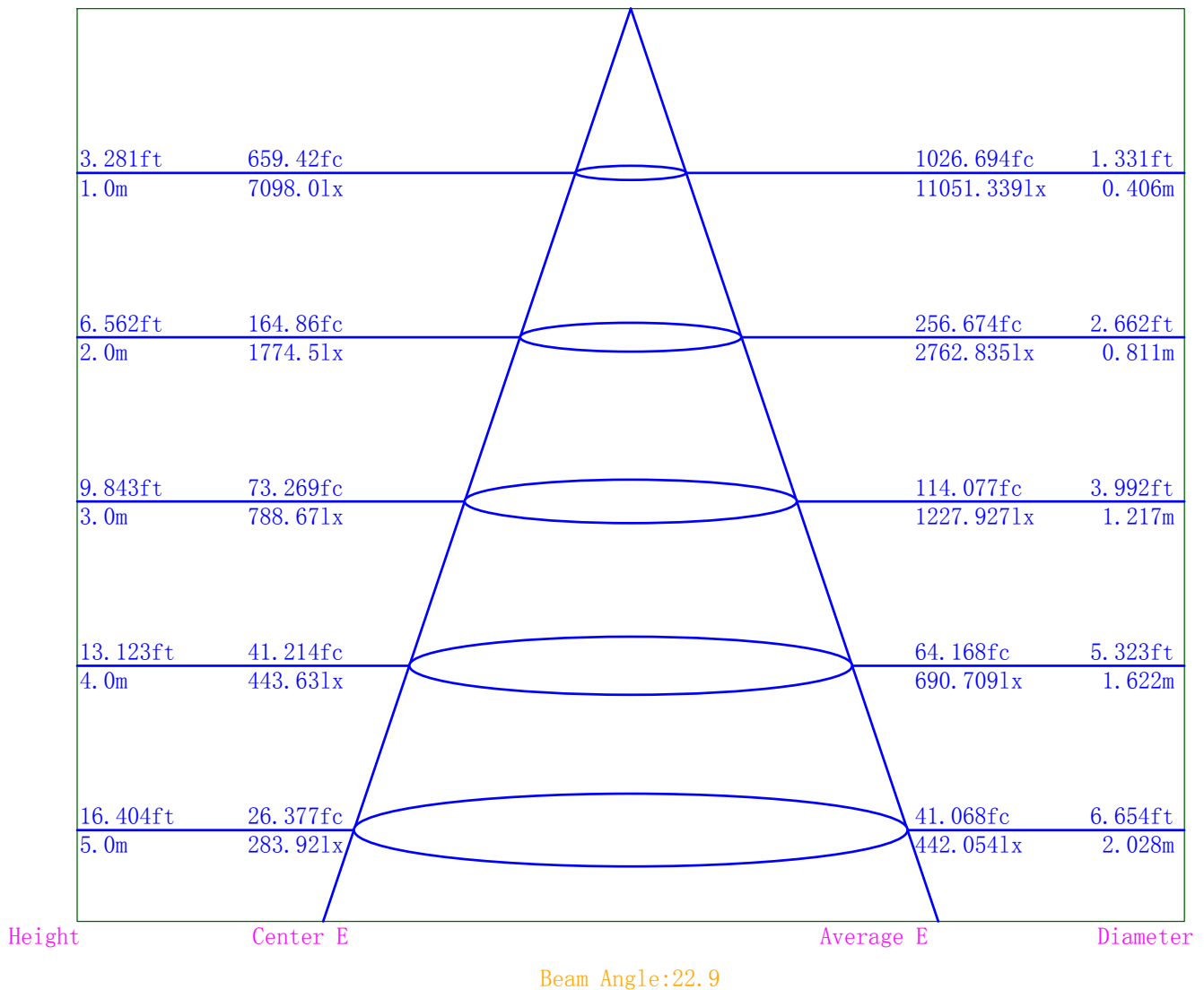
- Curves:
 [Unit: lx]
 [EMax] =7098.000
- [EMax*90%]=6388.200
 - [EMax*80%]=5678.400
 - [EMax*70%]=4968.600
 - [EMax*60%]=4258.800
 - [EMax*50%]=3549.000
 - [EMax*40%]=2839.200
 - [EMax*30%]=2129.400
 - [EMax*20%]=1419.600
 - [EMax*10%]=709.800

Space Plane Maximum Illuminance and @Angle:7098.00lx,0.0deg
 Plane Maximum Lighting Intensity and @Angle:7098.000cd,0deg

Illuminance-Distance Diagram

Lum. Name: LED LUMINAIRE	Lum. Catalog: LG-9112A 24° 9W	Test ID: IESNA:LM-79-08
Lamp Name:	Lamp Catalog: LED	Test Lab: LIGHT LABORATORY, INC. (www.lig
Manufacture: Light and Green	Test Machine:GON-2000	Test Date: 4/20/2021

Illuminance-Distance Curve



Indoor Luminance Limiting Curves

Lum. Name: LED LUMINAIRE	Lum. Catalog: LG-9112A 24° 9W	Test ID: IESNA:LM-79-08
Lamp Name:	Lamp Catalog: LED	Test Lab: LIGHT LABORATORY, INC. (www.lig
Manufacture: Light and Green	Test Machine:GON-2000	Test Date: 4/20/2021

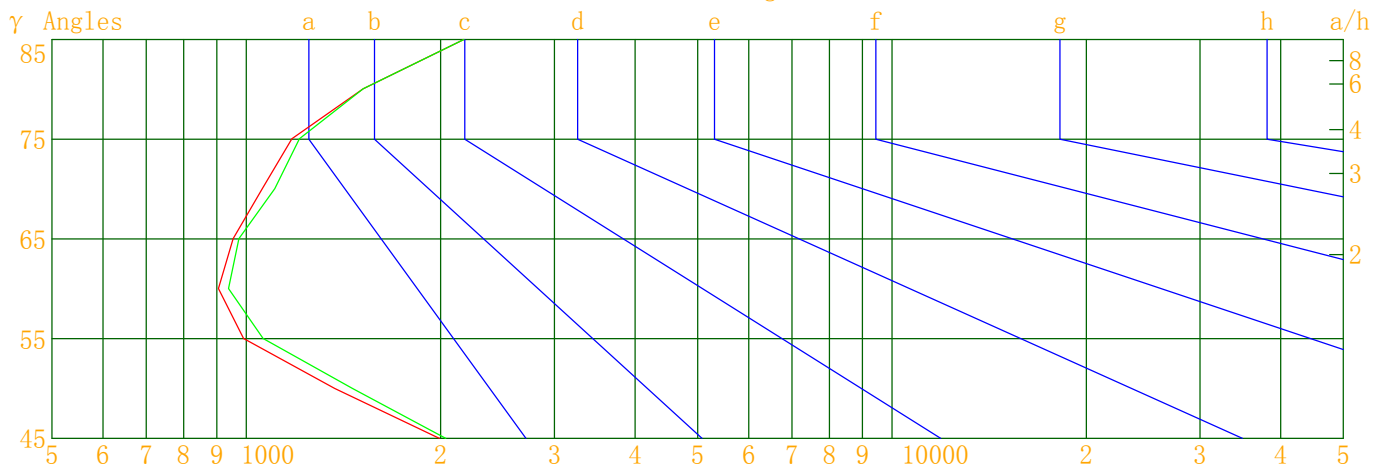
Glare Grade Table

GI	Quality	Using Illuminance							
		a	b	c	d	e	f	g	h
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	1990	1370	990	905	954	1059	1177	1517	2172
C90	2037	1460	1062	938	974	1107	1208	1517	2172

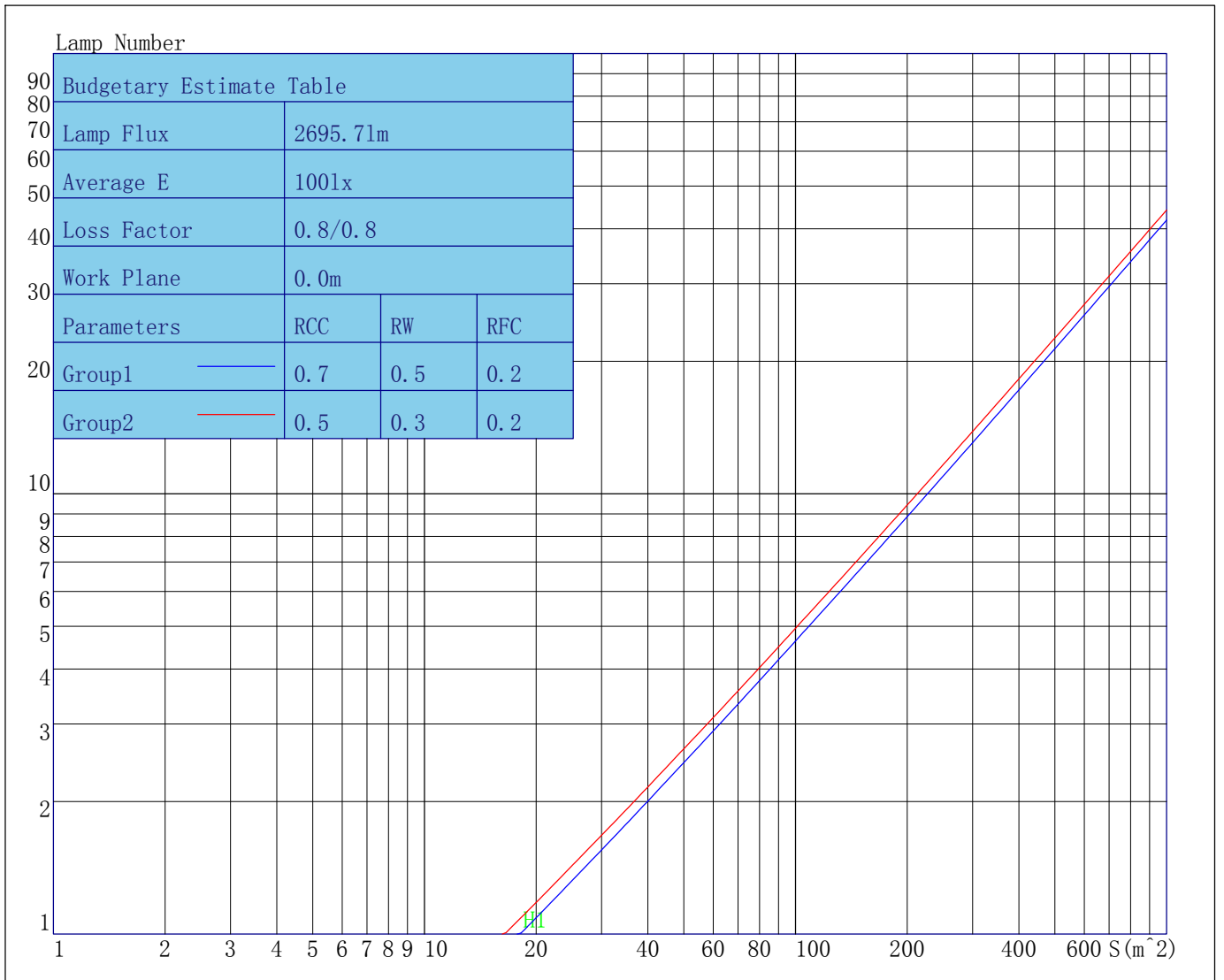
Luminance Limiting Curve



Luminous Size: Length(m)=0.810 Width(m)=0.150 Height(m)=0.000 Area(m^2)=0.121500
 Luminous Type: Without Luminous Side
 Luminous Curves: C0-C180 Color: — C90-C270 Color: —

Indoor Budgetary Estimate Table

Lum. Name: LED LUMINAIRE	Lum. Catalog: LG-9112A 24° 9W	Test ID: IESNA:LM-79-08
Lamp Name:	Lamp Catalog: LED	Test Lab: LIGHT LABORATORY, INC. (www.lig
Manufacture: Light and Green	Test Machine:GON-2000	Test Date: 4/20/2021



Parameters1: Rhocc = 0.7 Rhow = 0.5 Rhofc = 0.2 LLF = 0.8
 Parameters2: Rhocc = 0.5 Rhow = 0.3 Rhofc = 0.2 LLF = 0.8
 Average Illuminance(lx): 100 Cavity Height: H1(m) = 2

Indoor Coefficient of Utilization Table

Lum. Name: LED LUMINAIRE	Lum. Catalog: LG-9112A 24° 9W	Test ID: IESNA:LM-79-08
Lamp Name:	Lamp Catalog: LED	Test Lab: LIGHT LABORATORY, INC. (www.lig
Manufacture: Light and Green	Test Machine:GON-2000	Test Date: 4/20/2021

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	98	94	105	100	97	93	97	94	91	94	92	89	91	89	88	86
3	102	95	90	86	100	94	89	86	91	87	84	89	86	83	87	84	82	80
4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75
5	92	84	78	74	91	83	78	74	81	77	73	80	76	72	78	75	72	70
6	88	79	73	69	87	79	73	69	77	72	68	76	71	68	74	71	68	66
7	84	75	69	65	83	74	69	65	73	68	65	72	68	64	71	67	64	62
8	81	71	65	61	79	71	65	61	70	65	61	69	64	61	68	64	61	59
9	77	68	62	58	76	67	62	58	66	61	58	66	61	58	65	61	58	56
10	74	65	59	55	73	64	59	55	63	59	55	63	58	55	62	58	55	54

Unified Glare Rating Table

Lum. Name: LED LUMINAIRE	Lum. Catalog: LG-9112A 24° 9W	Test ID: IESNA:LM-79-08
Lamp Name:	Lamp Catalog: LED	Test Lab: LIGHT LABORATORY, INC. (www.lig
Manufacture: Light and Green	Test Machine:GON-2000	Test Date: 4/20/2021

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	11.5	12.5	11.8	12.8	13.2	11.6	12.7	12.0	13.0	13.3
Y=3H	11.9	12.8	12.3	13.2	13.5	12.1	13.0	12.4	13.3	13.7
Y=4H	12.3	13.1	12.7	13.5	13.9	12.4	13.3	12.8	13.6	14.0
Y=6H	12.8	13.6	13.2	13.9	14.3	12.9	13.7	13.3	14.1	14.5
Y=8H	13.1	13.8	13.5	14.2	14.6	13.2	13.9	13.6	14.3	14.7
Y=12H	13.4	14.1	13.8	14.5	14.9	13.5	14.2	13.9	14.6	15.0
X=4H Y=2H	11.4	12.3	11.8	12.7	13.0	11.6	12.4	12.0	12.8	13.2
Y=3H	12.1	12.8	12.5	13.2	13.6	12.3	13.0	12.7	13.4	13.8
Y=4H	12.7	13.3	13.1	13.7	14.2	12.8	13.4	13.2	13.9	14.3
Y=6H	13.4	14.0	13.9	14.4	14.9	13.5	14.1	14.0	14.5	15.0
Y=8H	13.8	14.4	14.3	14.8	15.3	13.9	14.5	14.4	14.9	15.4
Y=12H	14.3	14.8	14.8	15.2	15.7	14.4	14.8	14.9	15.3	15.8
X=8H Y=4H	12.9	13.4	13.3	13.8	14.3	13.0	13.5	13.5	14.0	14.4
Y=6H	13.9	14.3	14.4	14.8	15.3	14.0	14.4	14.5	14.9	15.4
Y=8H	14.4	14.8	15.0	15.3	15.8	14.5	14.9	15.0	15.4	15.9
Y=12H	15.1	15.4	15.6	15.9	16.5	15.2	15.5	15.7	16.0	16.6
X=12H Y=4H	12.9	13.4	13.4	13.8	14.3	13.0	13.5	13.5	14.0	14.4
Y=6H	14.0	14.3	14.5	14.8	15.4	14.1	14.4	14.6	14.9	15.4
Y=8H	14.6	15.0	15.2	15.5	16.0	14.7	15.0	15.2	15.5	16.1
Variations with the objerver position at spacings										
S=1.0H	0.1/-0.1					0.2/-0.2				
S=1.5H	0.3/-0.3					0.3/-0.3				
S=2.0H	0.2/-0.3					0.2/-0.3				
Reduced UGR Table:										
Nordic Standard Table:	BKO					BKO				
Correction Value	2.5					2.5				

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

IES Indoor Report

Photometric Filename:LG-9112A 24°9W.IES

Candela Tabulation

V/H	C0.0	C5.0	C10.0	C15.0	C20.0	C25.0	C30.0	C35.0	C40.0	C45.0	C50.0	C55.0
γ 0.0	7098.00	7098.00	7098.00	7098.00	7098.00	7098.00	7098.00	7098.00	7098.00	7098.00	7098.00	7098.00
γ 1.0	6951.00	6958.00	6980.00	7000.00	7008.00	7016.00	7024.00	7033.00	7053.00	7070.00	7082.00	7099.00
γ 2.0	6821.00	6830.00	6848.00	6869.00	6878.00	6885.00	6897.00	6910.00	6930.00	6947.00	6959.00	6977.00
γ 3.0	6645.00	6654.00	6670.00	6692.00	6702.00	6709.00	6720.00	6729.00	6752.00	6766.00	6772.00	6791.00
γ 4.0	6383.00	6387.00	6407.00	6426.00	6434.00	6444.00	6456.00	6465.00	6487.00	6500.00	6506.00	6524.00
γ 5.0	6062.00	6070.00	6085.00	6103.00	6112.00	6121.00	6130.00	6139.00	6156.00	6170.00	6174.00	6188.00
γ 6.0	5726.00	5733.00	5747.00	5764.00	5769.00	5775.00	5783.00	5790.00	5806.00	5811.00	5816.00	5831.00
γ 7.0	5344.00	5350.00	5361.00	5377.00	5379.00	5386.00	5389.00	5395.00	5414.00	5418.00	5419.00	5434.00
γ 8.0	4935.00	4941.00	4954.00	4968.00	4969.00	4974.00	4980.00	4984.00	4997.00	5004.00	5007.00	5017.00
γ 9.0	4396.00	4399.00	4409.00	4423.00	4428.00	4434.00	4438.00	4444.00	4457.00	4461.00	4459.00	4469.00
γ 10.0	4055.00	4057.00	4072.00	4084.00	4087.00	4094.00	4098.00	4100.00	4113.00	4113.00	4111.00	4120.00
γ 12.0	3288.00	3295.00	3302.00	3312.00	3313.00	3319.00	3323.00	3328.00	3340.00	3343.00	3345.00	3354.00
γ 14.0	2740.00	2746.00	2755.00	2759.00	2764.00	2772.00	2772.00	2775.00	2786.00	2787.00	2787.00	2795.00
γ 16.0	2317.00	2325.00	2334.00	2338.00	2340.00	2345.00	2347.00	2352.00	2361.00	2364.00	2365.00	2369.00
γ 18.0	1987.00	1991.00	2000.00	2003.00	2006.00	2011.00	2013.00	2014.00	2025.00	2028.00	2029.00	2034.00
γ 20.0	1659.00	1662.00	1670.00	1673.00	1676.00	1681.00	1683.00	1683.00	1693.00	1693.00	1696.00	1698.00
γ 22.0	1473.00	1477.00	1483.00	1486.00	1489.00	1492.00	1494.00	1493.00	1502.00	1503.00	1504.00	1506.00
γ 24.0	1337.00	1341.00	1346.00	1349.00	1351.00	1354.00	1355.00	1354.00	1360.00	1363.00	1364.00	1365.00
γ 26.0	1237.00	1240.00	1245.00	1247.00	1249.00	1252.00	1254.00	1251.00	1257.00	1260.00	1259.00	1262.00
γ 28.0	1160.00	1162.00	1168.00	1169.00	1171.00	1174.00	1176.00	1174.00	1180.00	1183.00	1182.00	1185.00
γ 30.0	1082.00	1085.00	1089.00	1092.00	1094.00	1098.00	1100.00	1099.00	1107.00	1111.00	1111.00	1115.00
γ 35.0	798.00	801.00	802.00	807.00	808.00	811.00	815.00	813.00	819.00	821.00	823.00	823.00
γ 40.0	414.00	415.00	416.00	417.00	418.00	418.00	421.00	418.00	419.00	421.00	421.00	421.00
γ 45.0	171.00	171.00	171.00	172.00	173.00	174.00	174.00	174.00	174.00	178.00	178.00	178.00
γ 50.0	107.00	107.00	107.00	108.00	108.00	109.00	109.00	109.00	110.00	110.00	111.00	112.00
γ 55.0	69.00	70.00	70.00	70.00	70.00	70.00	71.00	71.00	71.00	71.00	72.00	72.00
γ 60.0	55.00	55.00	55.00	55.00	55.00	55.00	56.00	56.00	56.00	56.00	56.00	56.00
γ 65.0	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	50.00	50.00
γ 70.0	44.00	44.00	44.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
γ 75.0	37.00	37.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00
γ 80.0	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00
γ 85.0	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
γ 90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V/H	C60.0	C65.0	C70.0	C75.0	C80.0	C85.0	C90.0					
γ 0.0	7098.00	7098.00	7098.00	7098.00	7098.00	7098.00	7098.00					
γ 1.0	7110.00	7126.00	7141.00	7150.00	7159.00	7164.00	7165.00					
γ 2.0	6988.00	7003.00	7019.00	7026.00	7035.00	7039.00	7042.00					
γ 3.0	6800.00	6814.00	6828.00	6837.00	6844.00	6850.00	6853.00					
γ 4.0	6532.00	6542.00	6557.00	6566.00	6573.00	6580.00	6582.00					
γ 5.0	6194.00	6206.00	6217.00	6224.00	6232.00	6239.00	6242.00					
γ 6.0	5837.00	5847.00	5857.00	5863.00	5869.00	5873.00	5877.00					
γ 7.0	5438.00	5447.00	5458.00	5462.00	5470.00	5475.00	5478.00					
γ 8.0	5022.00	5030.00	5037.00	5042.00	5048.00	5054.00	5058.00					
γ 9.0	4472.00	4477.00	4483.00	4487.00	4492.00	4493.00	4499.00					
γ 10.0	4120.00	4127.00	4134.00	4136.00	4139.00	4141.00	4142.00					
γ 12.0	3353.00	3360.00	3364.00	3369.00	3376.00	3376.00	3378.00					
γ 14.0	2796.00	2798.00	2801.00	2802.00	2806.00	2810.00	2813.00					

