

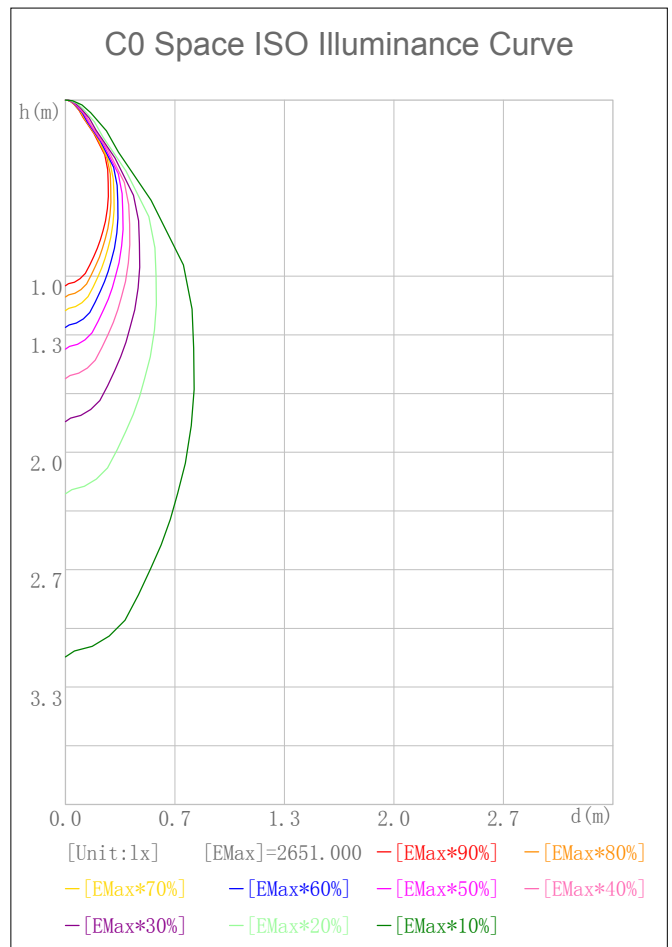
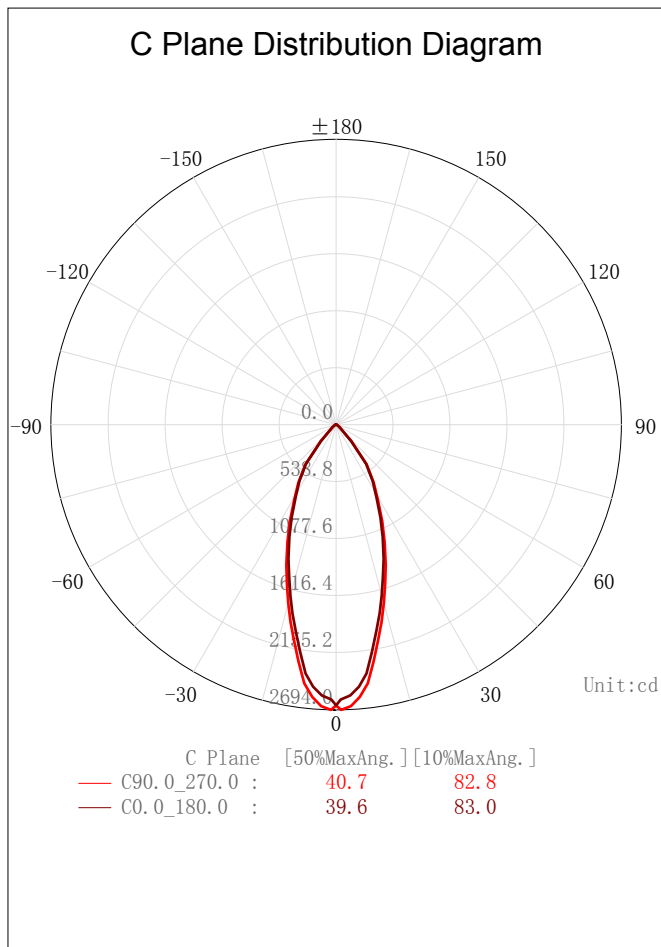
Indoor Luminaire Photometric Data

Description Information

Luminaire Name: LED Recessed Downlight		Lum. Catalog: LG-9012A-AC-30K	Test ID: IESNA:LM-79-08
Lamp Name:		Lamp Catalog: LED	Test Date: 2/16/2021
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): 0.250m*0.250m*0.000m		Lum. Area (m2): 0.063	Lum. W (kg): 0.000
Test System: C, γ	Test Step: C=5.0 γ=1.0	Temp. (°C): 25	Humidity(%):

Character Parameter

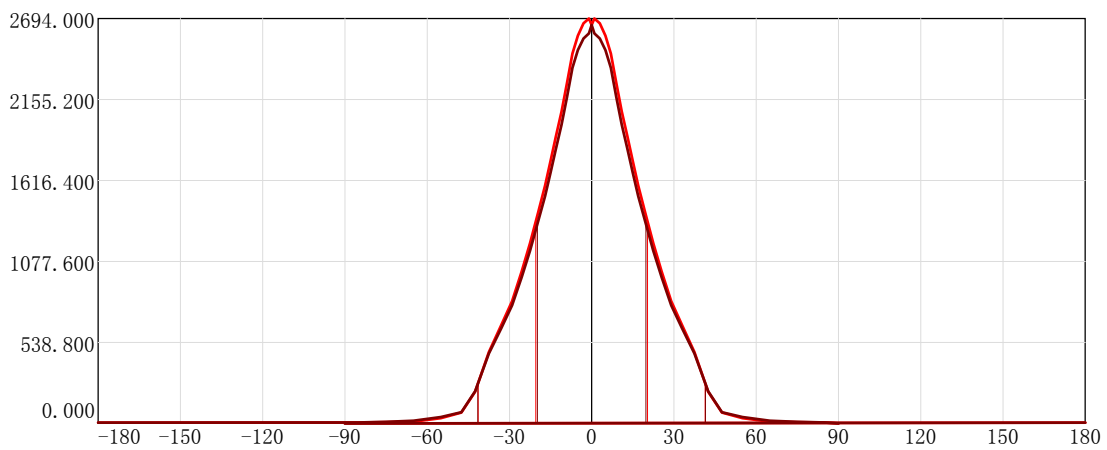
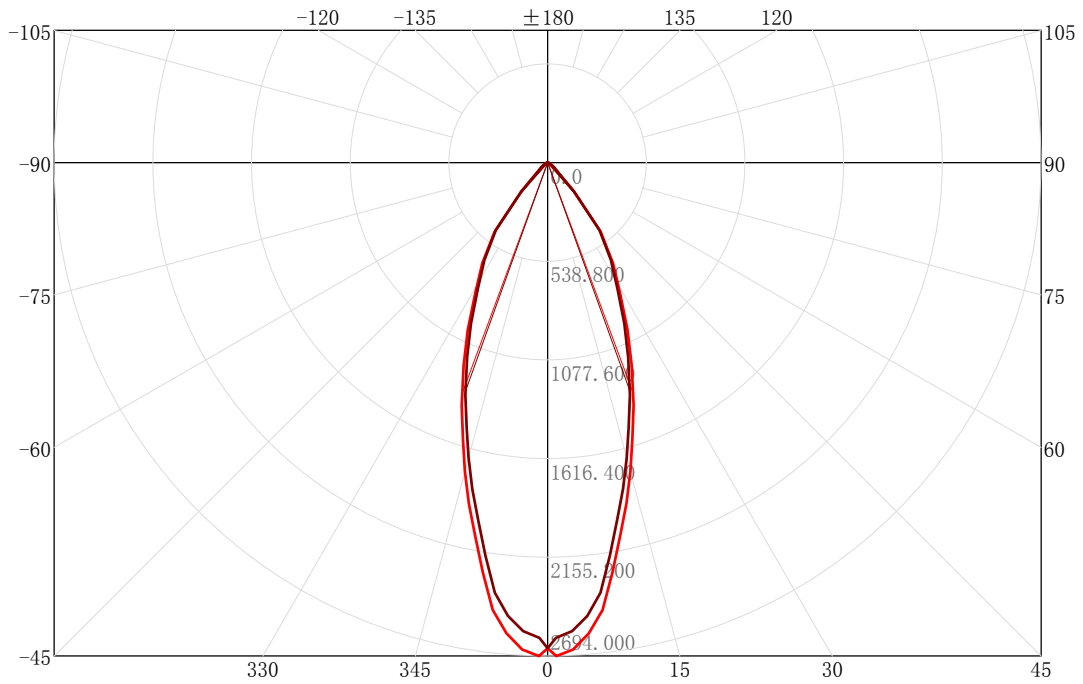
Lamp Speciality Parameter		Luminaire Speciality Parameter	
Rated Flux(lm): 1723.894	Luminaire Flux(lm): 1723.894	Field Angle(10%Imax): 82.8(°)	
Rated Power(W):	Luminaire Efficiency: 100.00%	Down Lumens&Percent: 1723.894lm 100.00%	
Rated Voltage(V):	Luminaire EER(lm/W): 76.516	Up Lumens&Percent: 0.000lm 0.00%	
Tested Power(W): 22.530	Max. Candela(cd): 2694.000	S/MH: C0_a180=0.610 C90_270=0.638	
Lamps' Inside: 1	Max Cand@Ang. (°): C=90.0 γ=1.0	CIE Type: Semi-Direct	
Tested Electrics (V, A, pf): 239.6, 0.056, 0.967	Beam Angle (50%Imax): 40.7(°)	ErP φ use(90°): 1614.417lm	
Lamp Size (W*L*H): 0.250m*0.250m*0.000m	Left=-20.3°, Right=20.3°	IRF(%): 337.172	



2D Plane Light Intensity Distribution Curve

Lum. Name: LED Recessed Downlight	Lum. Catalog: LG-9012A-AC-30K	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: 2/16/2021

C Plane Distribution Diagram

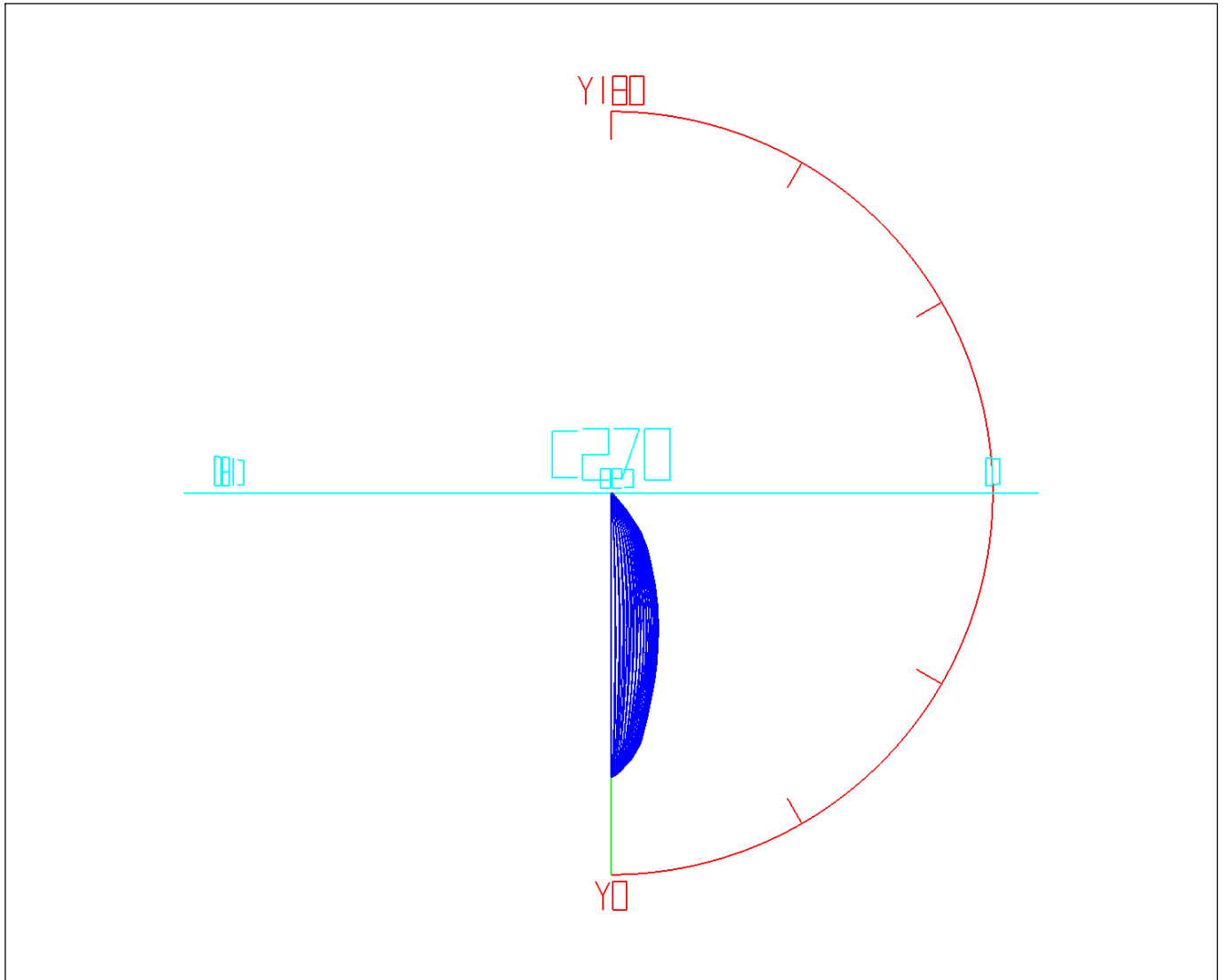


C Plane	[50%MaxAng.]	[10%MaxAng.]	Unit:cd
C90.0_270.0	40.7	82.8	
C0.0_180.0	39.6	83.0	

3D Light Intensity Distribution Modal

Lum. Name: LED Recessed Downlight	Lum. Catalog: LG-9012A-AC-30K	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: 2/16/2021

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

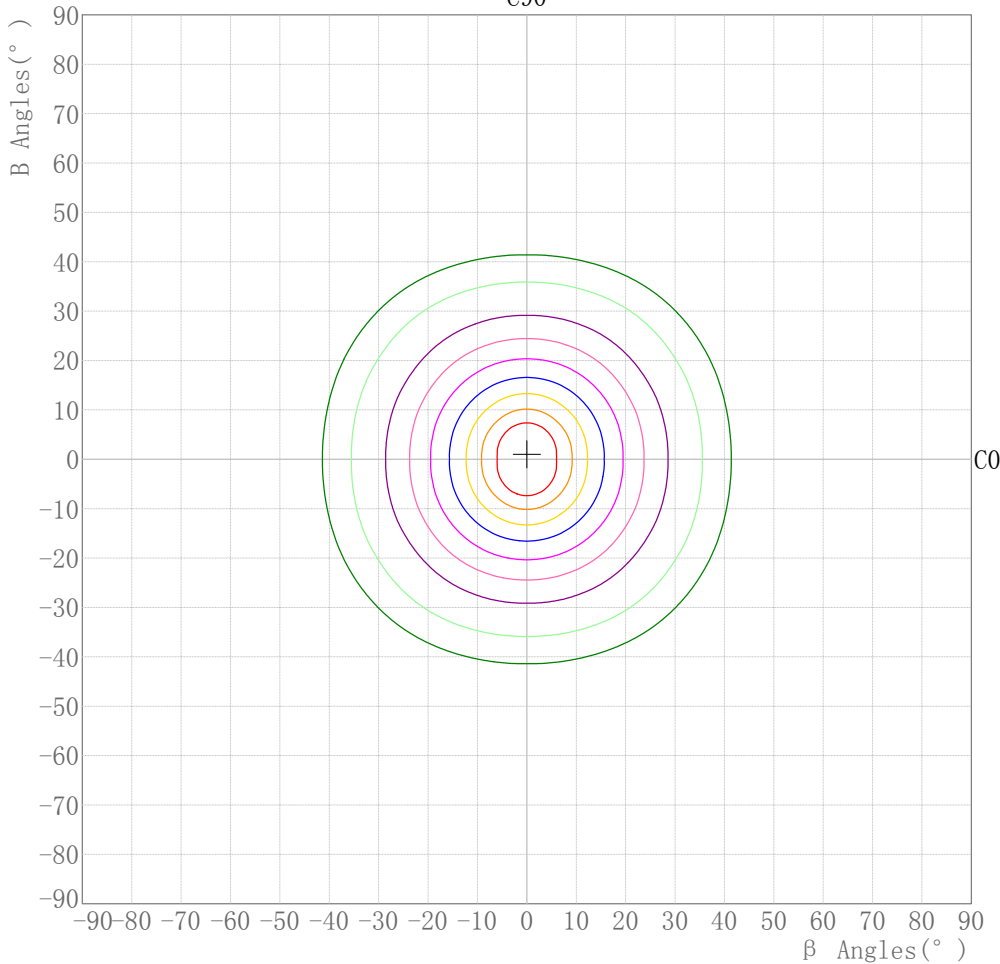
Zone (γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-1.0	2.53	2.53	0.15	0.15
1.0-3.0	20.13	22.67	1.17	1.31
3.0-5.0	39.38	62.04	2.28	3.60
5.0-7.0	56.72	118.76	3.29	6.89
7.0-9.0	70.74	189.50	4.10	10.99
9.0-11.0	81.02	270.51	4.70	15.69
11.0-13.0	89.08	359.59	5.17	20.86
13.0-15.0	95.07	454.67	5.52	26.37
15.0-17.0	98.63	553.29	5.72	32.10
17.0-19.5	125.87	679.17	7.30	39.40
19.5-22.5	150.87	830.04	8.75	48.15
22.5-25.5	145.60	975.64	8.45	56.60
25.5-29.0	158.31	1133.96	9.18	65.78
29.0-33.0	164.22	1298.18	9.53	75.30
33.0-37.5	160.07	1458.25	9.29	84.59
37.5-42.5	121.82	1580.07	7.07	91.66
42.5-47.5	56.61	1636.68	3.28	94.94
47.5-55.0	37.45	1674.13	2.17	97.11
55.0-65.0	27.11	1701.24	1.57	98.69
65.0-75.0	12.91	1714.15	0.75	99.43
75.0-85.0	8.10	1722.25	0.47	99.90
85.0-90.0	1.64	1723.89	0.10	100.00

Rectangle ISO Lighting Intensity Diagram

Lum. Name: LED Recessed Downlight	Lum. Catalog: LG-9012A-AC-30K	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: 2/16/2021

ISO Lighting Intensity Curve

C90



Curves:

[Unit: cd]

[IMax] =2694.000

- [IMax*90%]=2424.600
- [IMax*80%]=2155.200
- [IMax*70%]=1885.800
- [IMax*60%]=1616.400
- [IMax*50%]=1347.000
- [IMax*40%]=1077.600
- [IMax*30%]=808.200
- [IMax*20%]=538.800
- [IMax*10%]=269.400

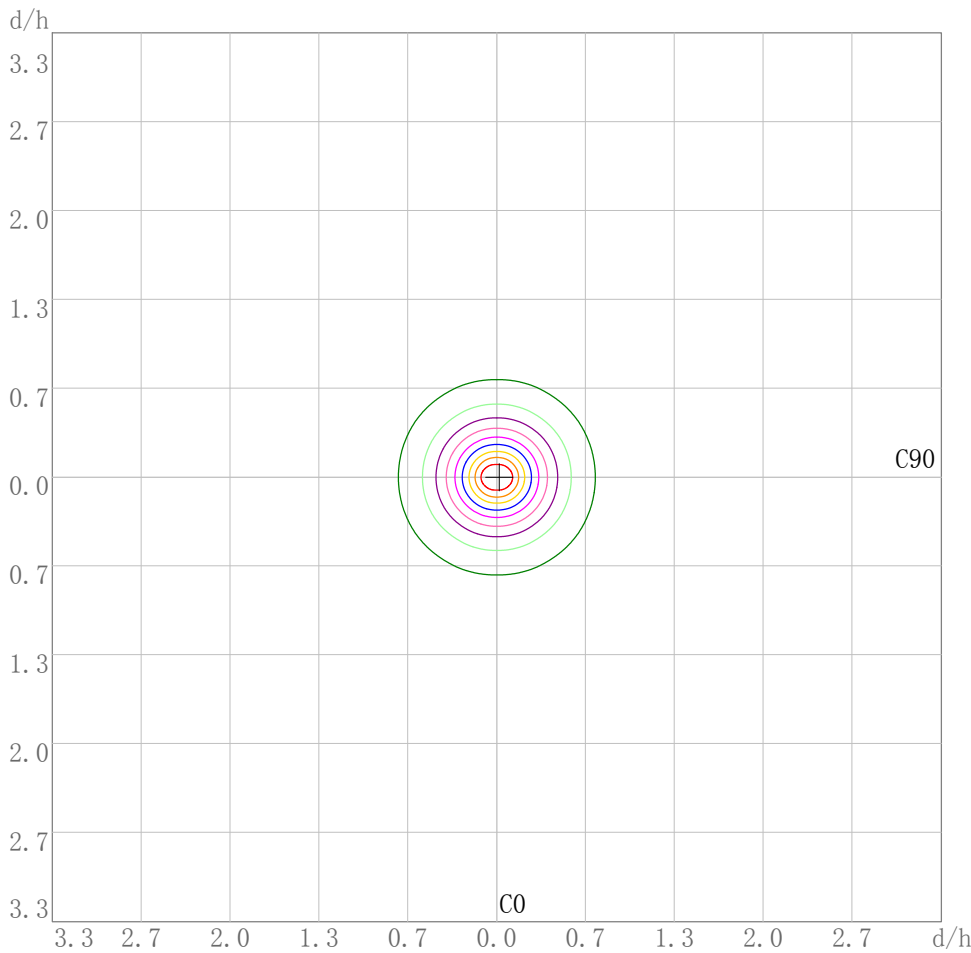
Maximum Light Intensity(cd): 2694.00

Maximum Cand.@Angle: H=0.0°,V=1.0°

Plane ISO-Illuminance Diagram

Lum. Name: LED Recessed Downlight	Lum. Catalog: LG-9012A-AC-30K	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: 2/16/2021

Plane ISO-Illuminance Curve



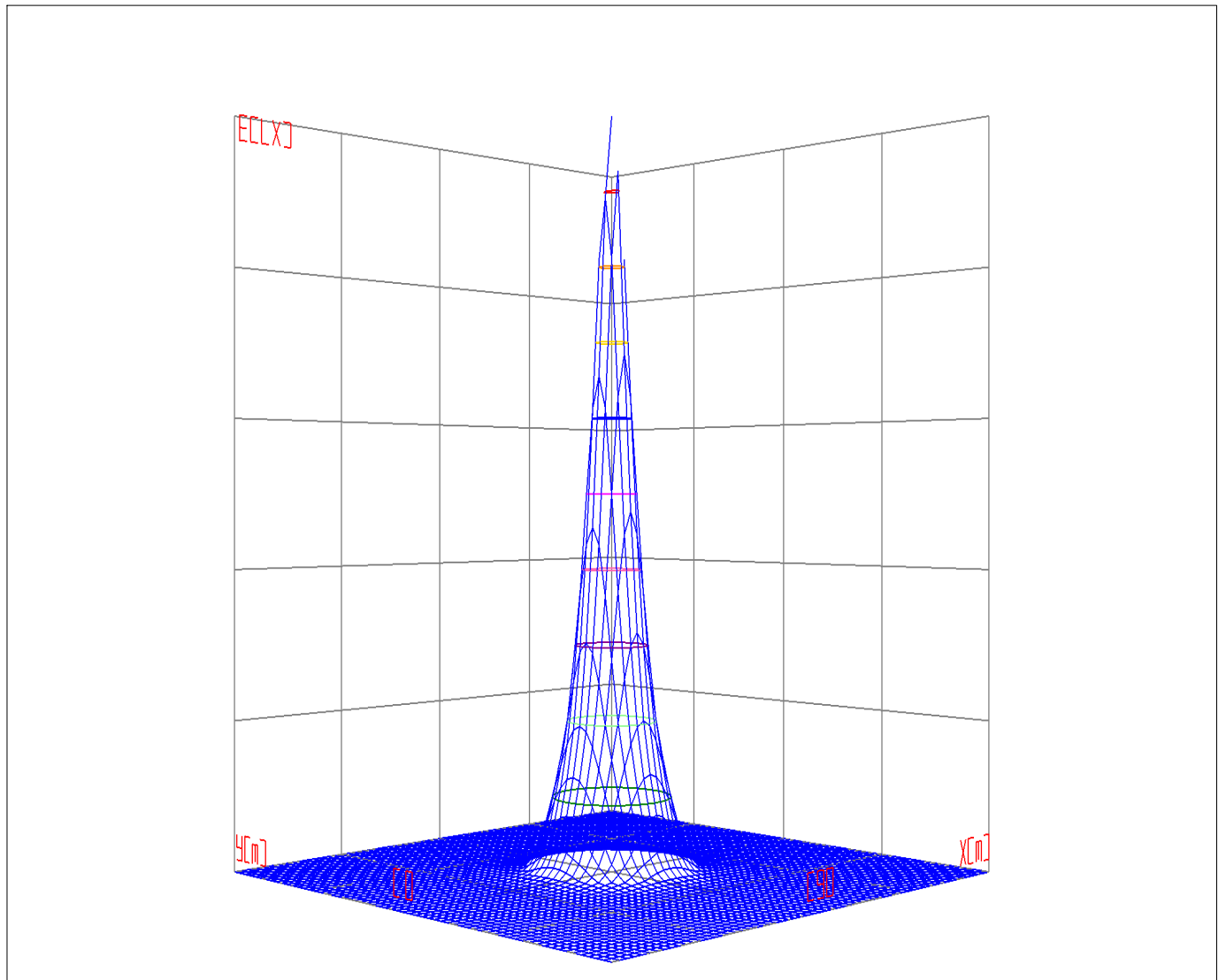
- Curves:
unit:lx
- [EMax] =299.197
 - [EMax*90%]=269.277
 - [EMax*80%]=239.357
 - [EMax*70%]=209.438
 - [EMax*60%]=179.518
 - [EMax*50%]=149.598
 - [EMax*40%]=119.679
 - [EMax*30%]=89.759
 - [EMax*20%]=59.839
 - [EMax*10%]=29.920

Working Plane Luminaire Mounting Height(m): 3.00
 Working Plane Maximum Illuminance(lx): 299.20
 Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

3D Plane ISO Illuminance Diagram

Lum. Name: LED Recessed Downlight	Lum. Catalog: LG-9012A-AC-30K	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: 2/16/2021

3D Plane Illuminance Modal

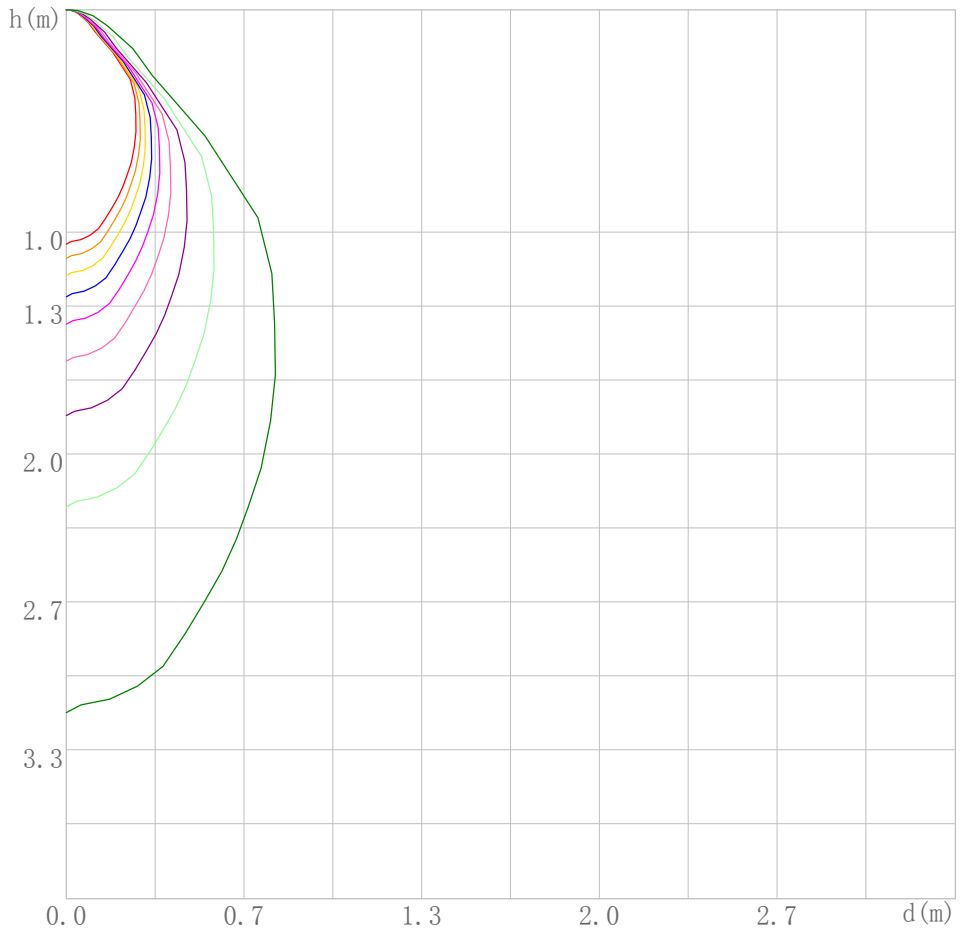


Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —
 View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

Space ISO Illuminance Diagram

Lum. Name: LED Recessed Downlight	Lum. Catalog: LG-9012A-AC-30K	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: 2/16/2021

Space ISO Illuminance Curve



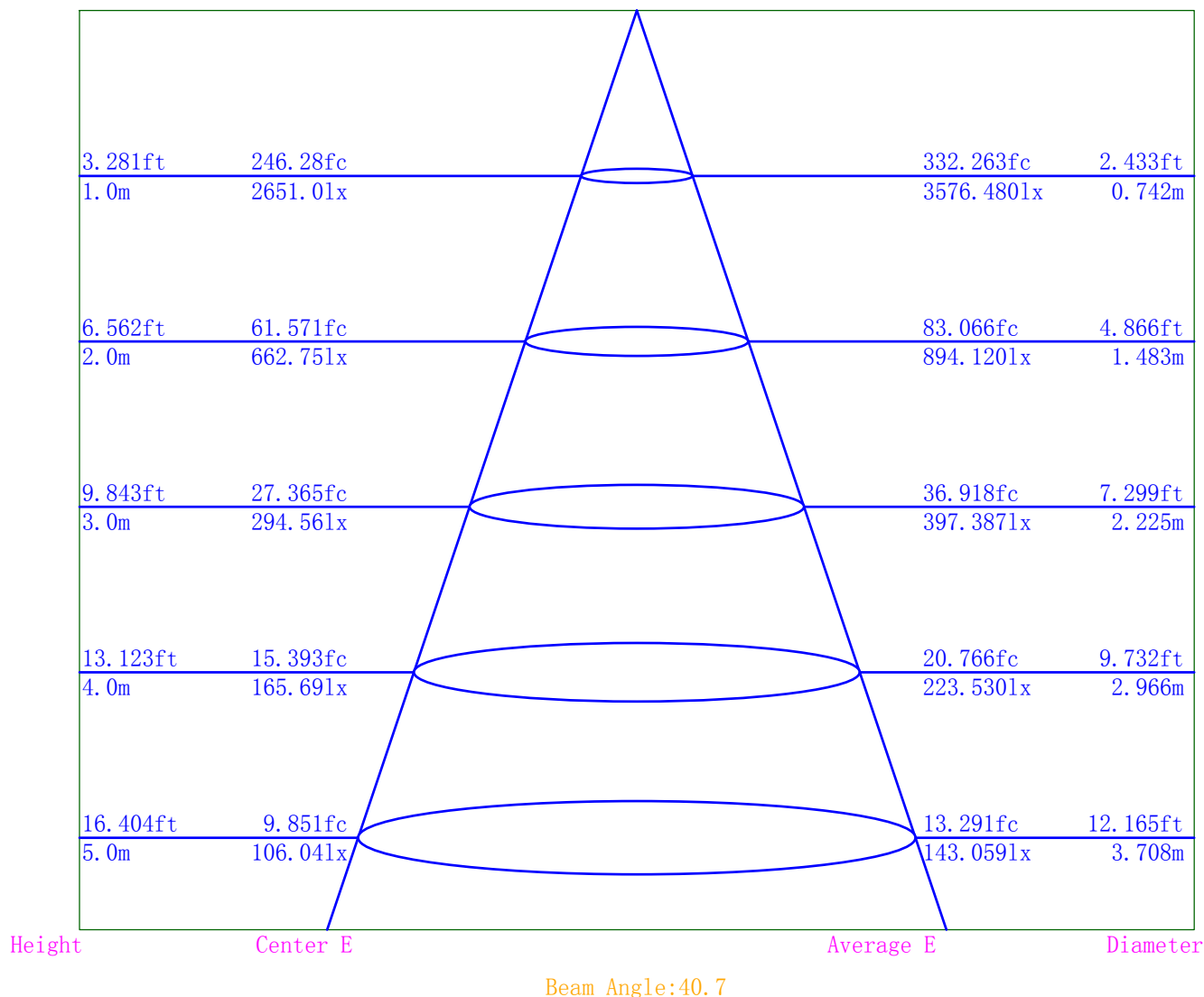
- Curves:
 [Unit: lx]
 [EMax] =2651.000
- [EMax*90%]=2385.900
 - [EMax*80%]=2120.800
 - [EMax*70%]=1855.700
 - [EMax*60%]=1590.600
 - [EMax*50%]=1325.500
 - [EMax*40%]=1060.400
 - [EMax*30%]=795.300
 - [EMax*20%]=530.200
 - [EMax*10%]=265.100

Space Plane Maximum Illuminance and @Angle:2651.00lx,0.0deg
 Plane Maximum Lighting Intensity and @Angle:2651.000cd,0eg

Illuminance-Distance Diagram

Lum. Name: LED Recessed Downlight	Lum. Catalog: LG-9012A-AC-30K	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: 2/16/2021

Illuminance-Distance Curve



Indoor Luminance Limiting Curves

Lum. Name: LED Recessed Downlight	Lum. Catalog: LG-9012A-AC-30K	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: 2/16/2021

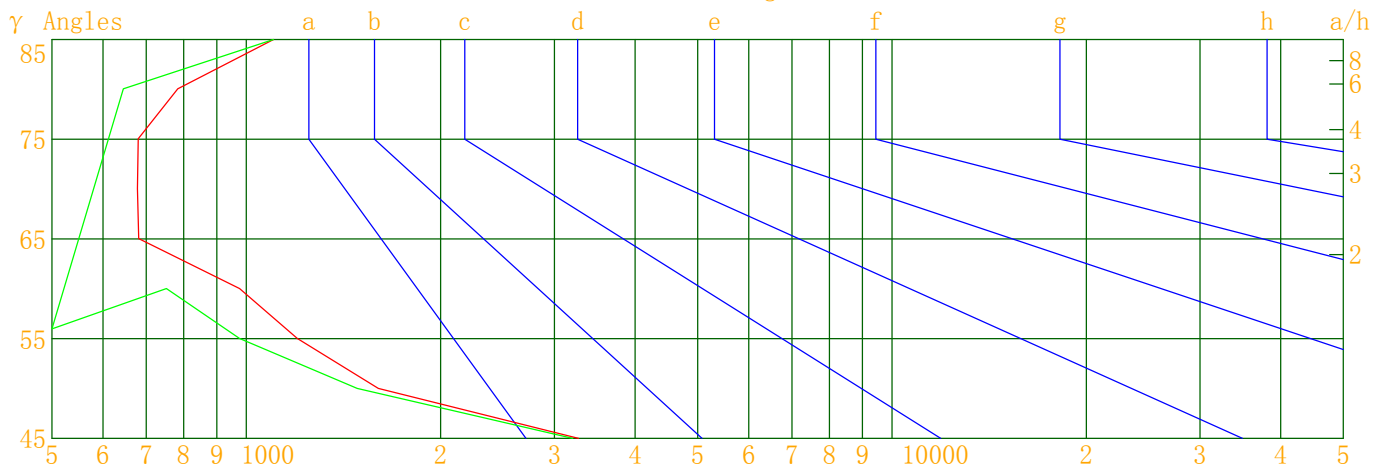
Glare Grade Table

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	3270	1601	1199	976	681	678	680	783	1101
C90	3202	1485	976	752	454	468	495	645	1101

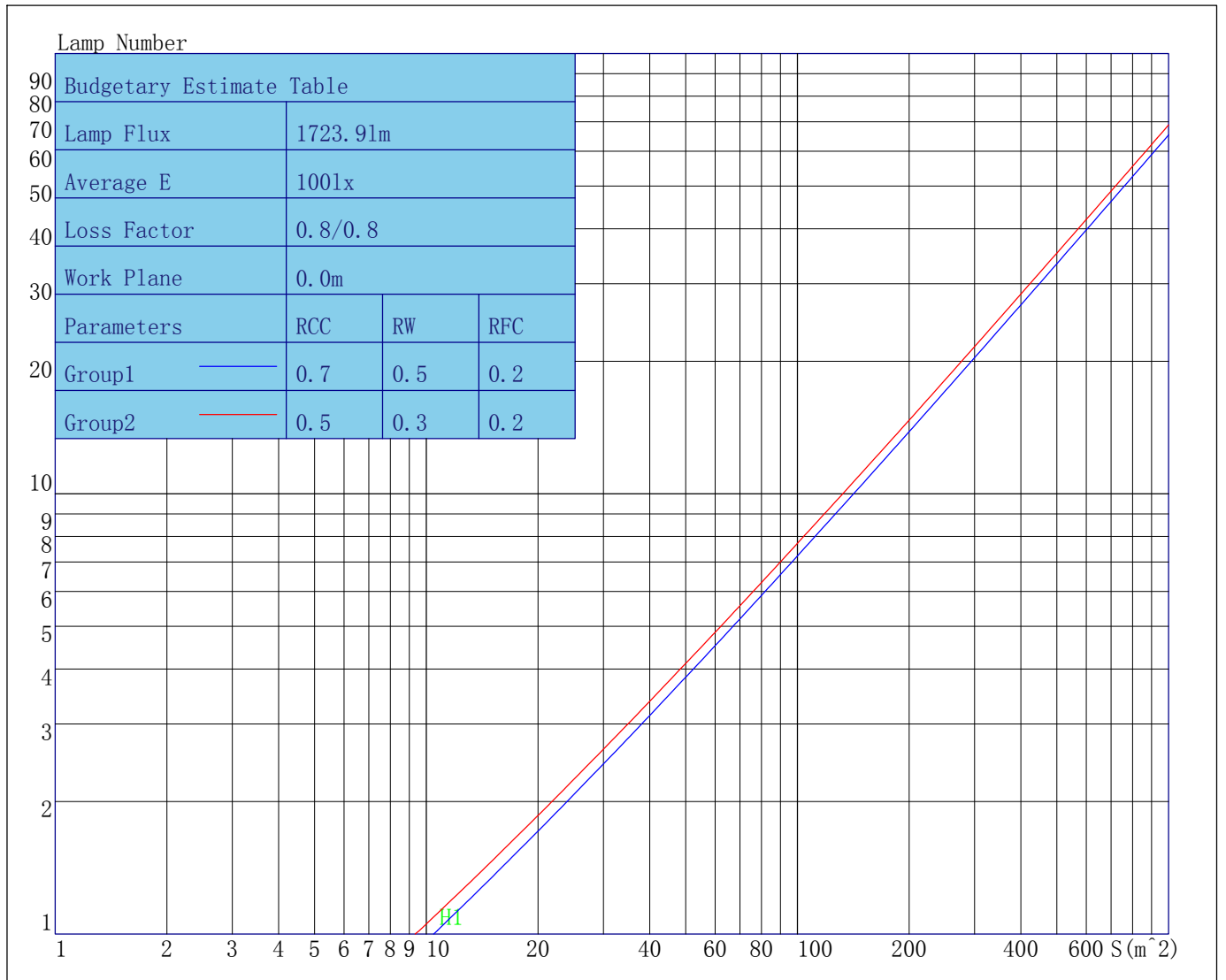
Luminance Limiting Curve



Luminous Size: Length(m)=0.250 Width(m)=0.250 Height(m)=0.000 Area(m^2)=0.062500
 Luminous Type: Without Luminous Side
 Luminous Curves: C0-C180 Color: — C90-C270 Color: —

Indoor Budgetary Estimate Table

Lum. Name: LED Recessed Downlight	Lum. Catalog: LG-9012A-AC-30K	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: 2/16/2021



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 Recessed Downlight	Lum. Catalog: LG-9012A-AC-30K	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: 2/16/2021

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	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93			
2	107	102	98	95	105	101	97	94	97	94	92	94	92	90	92	90	88	86			
3	102	95	90	86	100	94	89	86	91	87	84	89	86	83	87	84	82	80			
4	97	89	83	79	95	88	83	79	86	81	78	84	80	77	82	79	76	74			
5	92	83	77	73	90	82	77	73	81	76	72	79	75	71	77	74	71	69			
6	87	78	72	68	86	78	72	68	76	71	67	75	70	67	73	69	66	65			
7	83	74	68	63	82	73	67	63	72	67	63	71	66	63	69	65	62	61			
8	79	70	64	59	78	69	63	59	68	63	59	67	62	59	66	62	59	57			
9	75	66	60	56	74	65	60	56	64	59	56	63	59	55	63	58	55	54			
10	72	62	57	53	71	62	56	53	61	56	53	60	56	52	60	55	52	51			

Unified Glare Rating Table

Lum. Name: LED Recessed Downlight	Lum. Catalog: LG-9012A-AC-30K	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: 2/16/2021

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	Viewed crosswise					Viewed endwise				
X=2H Y=2H	12.8	13.8	13.2	14.1	14.4	12.8	13.8	13.1	14.1	14.4
Y=3H	12.8	13.7	13.1	14.0	14.4	12.7	13.6	13.0	13.9	14.3
Y=4H	12.8	13.6	13.2	14.0	14.3	12.6	13.5	13.0	13.8	14.2
Y=6H	12.8	13.6	13.2	13.9	14.3	12.6	13.4	13.0	13.7	14.1
Y=8H	12.8	13.5	13.2	13.9	14.3	12.6	13.3	13.0	13.7	14.1
Y=12H	12.8	13.5	13.3	13.9	14.3	12.6	13.3	13.1	13.7	14.1
X=4H Y=2H	12.6	13.4	13.0	13.8	14.2	12.6	13.4	13.0	13.8	14.2
Y=3H	12.6	13.3	13.0	13.7	14.1	12.5	13.2	12.9	13.6	14.0
Y=4H	12.7	13.3	13.1	13.7	14.1	12.5	13.1	12.9	13.5	14.0
Y=6H	12.8	13.3	13.2	13.7	14.2	12.5	13.0	13.0	13.5	14.0
Y=8H	12.8	13.3	13.3	13.8	14.2	12.5	13.0	13.0	13.5	14.0
Y=12H	12.9	13.4	13.4	13.8	14.3	12.6	13.1	13.1	13.6	14.0
X=8H Y=4H	12.6	13.0	13.0	13.5	14.0	12.4	12.8	12.8	13.3	13.8
Y=6H	12.7	13.1	13.2	13.6	14.1	12.5	12.8	13.0	13.3	13.9
Y=8H	12.9	13.2	13.4	13.7	14.2	12.6	12.9	13.1	13.4	13.9
Y=12H	13.1	13.4	13.6	13.9	14.4	12.8	13.1	13.3	13.6	14.1
X=12H Y=4H	12.5	12.9	13.0	13.4	13.9	12.3	12.7	12.8	13.2	13.7
Y=6H	12.7	13.0	13.2	13.5	14.1	12.4	12.8	13.0	13.3	13.8
Y=8H	12.9	13.2	13.4	13.7	14.3	12.6	12.9	13.1	13.4	14.0
Variations with the objerver position at spacings										
S=1.0H	0.2/-0.2					0.1/-0.1				
S=1.5H	0.4/-0.3					0.2/-0.2				
S=2.0H	0.6/-0.5					0.3/-0.3				
Reduced UGR Table:										
Nordic Standard Table:	BKO					BKO				
Correction Value	0.7					0.6				

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

IES Indoor Report

Photometric Filename:2XDC9W-3000K, Ra90, Reflector 38°.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	2651.00	2651.00	2651.00	2651.00	2651.00	2651.00	2651.00	2651.00	2651.00	2651.00	2651.00	2651.00
γ 1.0	2595.00	2597.00	2600.00	2608.00	2615.00	2620.00	2627.00	2636.00	2640.00	2647.00	2653.00	2659.00
γ 3.0	2561.00	2563.00	2568.00	2574.00	2582.00	2587.00	2595.00	2603.00	2608.00	2614.00	2620.00	2627.00
γ 5.0	2484.00	2487.00	2490.00	2496.00	2504.00	2507.00	2514.00	2522.00	2526.00	2533.00	2539.00	2545.00
γ 7.0	2366.00	2368.00	2370.00	2376.00	2384.00	2388.00	2395.00	2403.00	2407.00	2414.00	2421.00	2427.00
γ 9.0	2171.00	2175.00	2177.00	2183.00	2191.00	2196.00	2202.00	2209.00	2214.00	2221.00	2226.00	2231.00
γ 11.0	1988.00	1992.00	1993.00	1999.00	2007.00	2010.00	2017.00	2023.00	2029.00	2035.00	2041.00	2047.00
γ 13.0	1828.00	1832.00	1834.00	1839.00	1847.00	1851.00	1858.00	1864.00	1869.00	1875.00	1881.00	1885.00
γ 15.0	1668.00	1673.00	1675.00	1680.00	1688.00	1692.00	1697.00	1702.00	1707.00	1712.00	1718.00	1722.00
γ 17.0	1512.00	1518.00	1519.00	1522.00	1531.00	1534.00	1538.00	1545.00	1549.00	1555.00	1559.00	1564.00
γ 19.5	1346.00	1349.00	1352.00	1355.00	1362.00	1365.00	1369.00	1374.00	1378.00	1382.00	1387.00	1391.00
γ 22.5	1149.00	1153.00	1156.00	1158.00	1164.00	1167.00	1170.00	1173.00	1177.00	1182.00	1186.00	1190.00
γ 25.5	973.00	975.00	977.00	980.00	984.00	987.00	987.00	991.00	995.00	1000.00	1004.00	1007.00
γ 29.0	786.00	788.00	791.00	793.00	796.00	798.00	798.00	799.00	803.00	807.00	810.00	813.00
γ 33.0	633.00	636.00	638.00	640.00	643.00	644.00	644.00	646.00	650.00	652.00	656.00	657.00
γ 37.5	465.00	467.00	469.00	471.00	473.00	474.00	473.00	474.00	476.00	479.00	480.00	481.00
γ 42.5	214.00	214.00	215.00	216.00	218.00	218.00	217.00	217.00	217.00	218.00	219.00	219.00
γ 47.5	75.00	75.00	75.00	75.00	76.00	76.00	76.00	77.00	77.00	77.00	78.00	78.00
γ 55.0	43.00	43.00	43.00	43.00	44.00	44.00	44.00	44.00	44.00	44.00	43.00	41.00
γ 65.0	18.00	18.00	18.00	18.00	19.00	19.00	19.00	18.00	17.00	17.00	16.00	15.00
γ 75.0	11.00	11.00	11.00	11.00	11.00	10.00	10.00	9.00	8.00	8.00	8.00	8.00
γ 85.0	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
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	2651.00	2651.00	2651.00	2651.00	2651.00	2651.00	2651.00					
γ 1.0	2668.00	2675.00	2682.00	2687.00	2690.00	2692.00	2694.00					
γ 3.0	2635.00	2643.00	2650.00	2655.00	2658.00	2661.00	2662.00					
γ 5.0	2553.00	2562.00	2567.00	2572.00	2576.00	2579.00	2580.00					
γ 7.0	2435.00	2443.00	2448.00	2453.00	2457.00	2460.00	2461.00					
γ 9.0	2240.00	2247.00	2254.00	2258.00	2262.00	2265.00	2265.00					
γ 11.0	2053.00	2059.00	2065.00	2068.00	2072.00	2074.00	2075.00					
γ 13.0	1890.00	1897.00	1901.00	1904.00	1907.00	1909.00	1911.00					
γ 15.0	1727.00	1734.00	1738.00	1741.00	1742.00	1743.00	1745.00					
γ 17.0	1569.00	1573.00	1576.00	1578.00	1579.00	1581.00	1582.00					
γ 19.5	1394.00	1399.00	1401.00	1403.00	1405.00	1405.00	1405.00					
γ 22.5	1192.00	1195.00	1196.00	1198.00	1198.00	1199.00	1199.00					
γ 25.5	1010.00	1011.00	1011.00	1013.00	1012.00	1012.00	1012.00					
γ 29.0	815.00	815.00	815.00	816.00	815.00	815.00	814.00					
γ 33.0	658.00	657.00	657.00	656.00	655.00	654.00	654.00					
γ 37.5	480.00	479.00	478.00	477.00	476.00	475.00	475.00					
γ 42.5	218.00	217.00	216.00	215.00	214.00	214.00	211.00					
γ 47.5	78.00	77.00	75.00	74.00	73.00	73.00	72.00					
γ 55.0	40.00	39.00	38.00	36.00	36.00	35.00	35.00					
γ 65.0	14.00	14.00	13.00	13.00	13.00	13.00	12.00					
γ 75.0	8.00	8.00	8.00	8.00	8.00	8.00	8.00					
γ 85.0	6.00	6.00	6.00	6.00	6.00	6.00	6.00					
γ 90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00					