

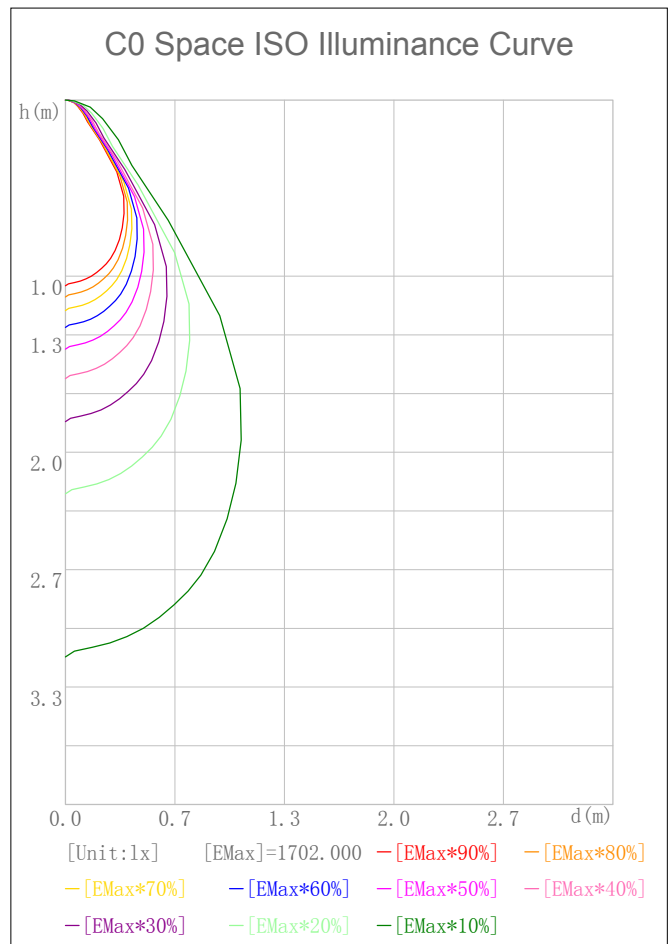
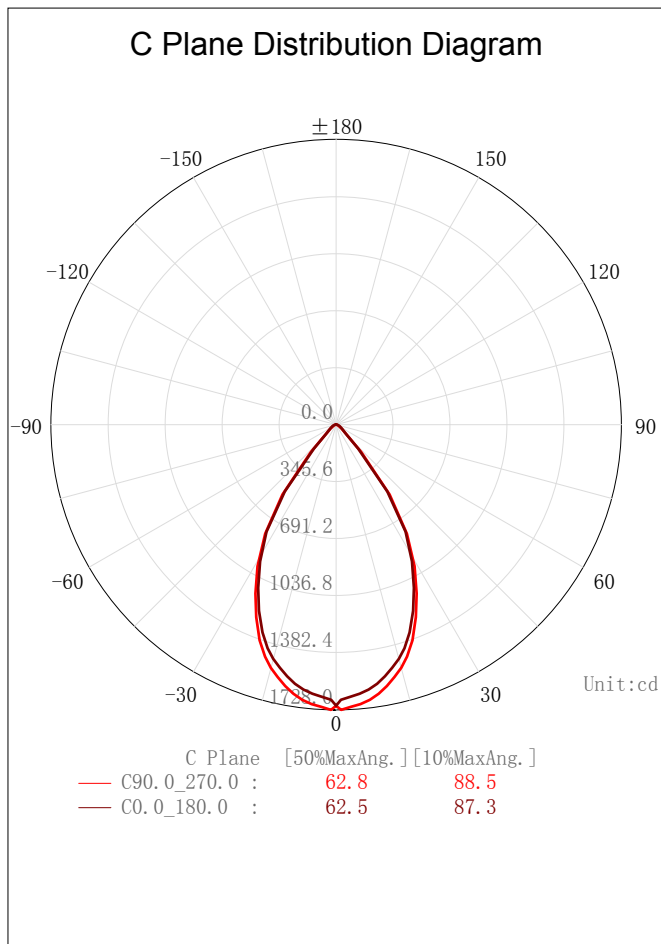
Indoor Luminaire Photometric Data

Description Information

Luminaire Name: LED LUMINAIRE	Lum. Catalog: 9012 - 60 deg	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):0.330m*0.750m*0.000m	Lum. Area (m2):0.248	Lum. W(kg): 0.000
Test System: C, γ	Test Step: C=5.0 γ=1.0	Temp. (°C): 25
		Humidity(%):

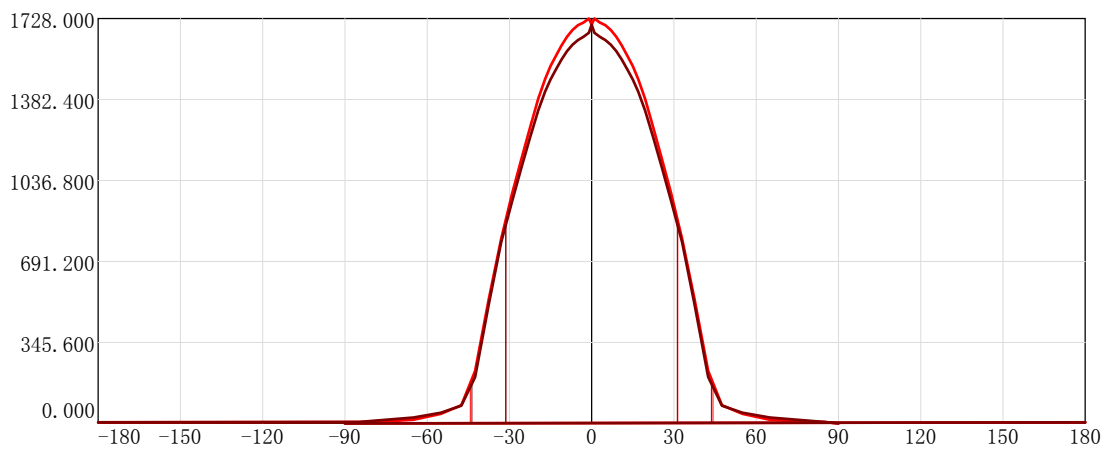
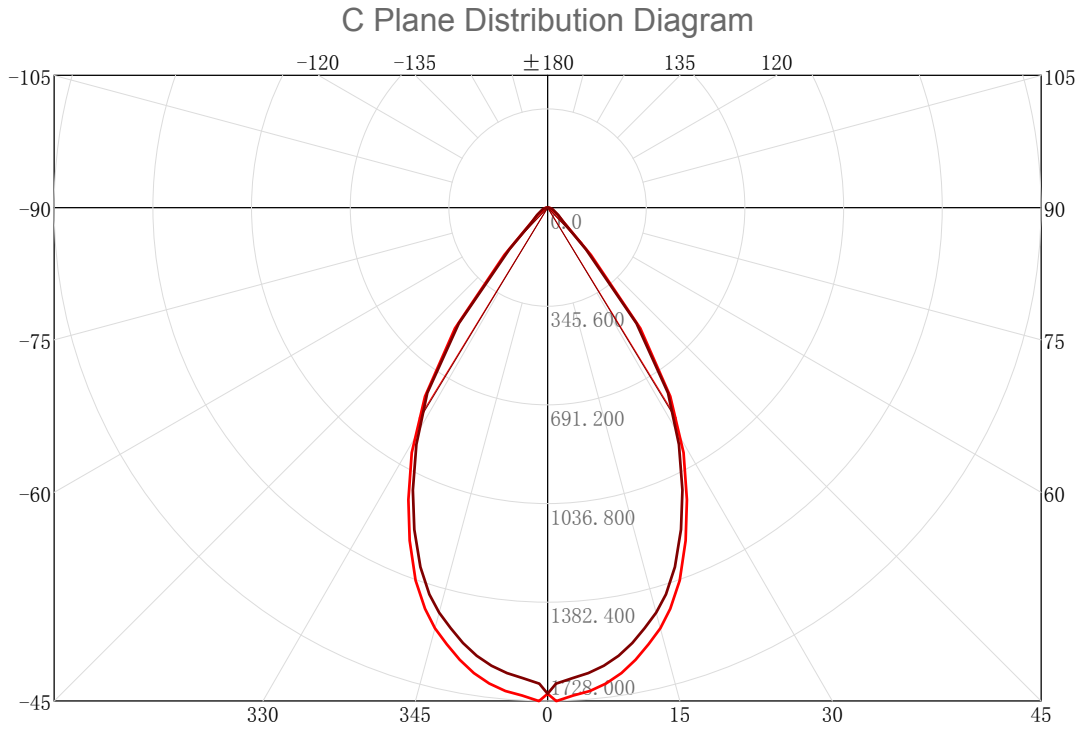
Character Parameter

Lamp Speciality Parameter	Luminaire Speciality Parameter	
Rated Flux(lm): 1717.801	Luminaire Flux(lm): 1717.801	Field Angle(10%Imax): 88.5(°)
Rated Power(W):	Luminaire Efficiency: 100.00%	Down Lumens&Percent: 1717.801lm 100.00%
Rated Voltage(V):	Luminaire EER(lm/W): 75.975	Up Lumens&Percent: 0.000lm 0.00%
Tested Power(W): 22.610	Max. Candela(cd): 1728.000	S/MH: C0_a180=0.917 C90_270=0.940
Lamps' Inside: 1	Max Cand@Ang. (°): C=90.0 γ=1.0	CIE Type: Semi-Direct
Tested Electrics (V, A, pf):240.1, 0.042	Beam Angle (50%Imax): 62.8(°)	ErP φ use(90°): 1595.915lm
Lamp Size (W*L*H):0.330m*0.750m*0.000m	Left=-31.4°, Right=31.4°	IRF(%): 218.172



2D Plane Light Intensity Distribution Curve

Lum. Name: LED LUMINAIRE	Lum. Catalog: 9012 - 60 deg	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

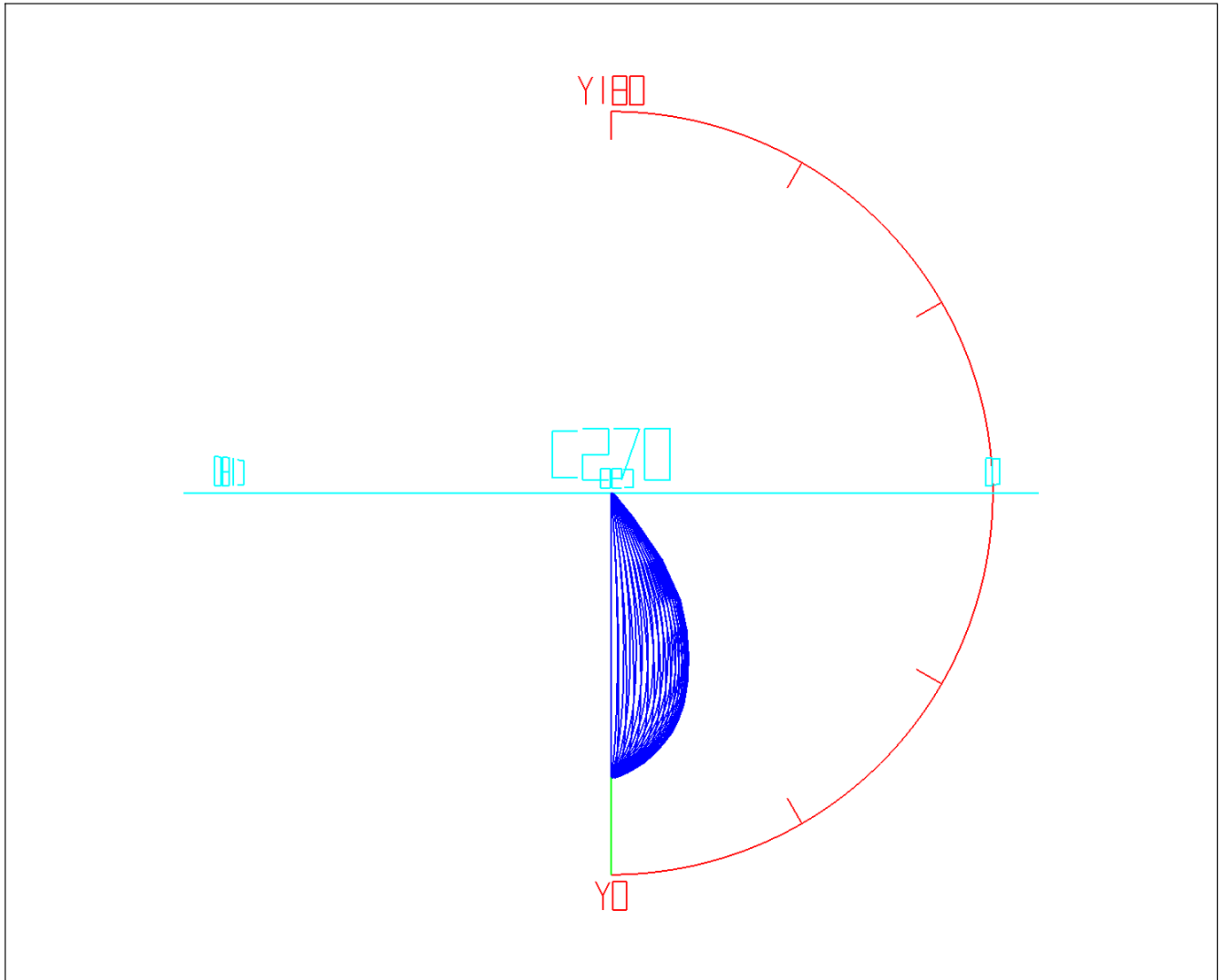


C Plane	[50%MaxAng.]	[10%MaxAng.]	Unit:cd
— C90.0_270.0 :	62.8	88.5	
— C0.0_180.0 :	62.5	87.3	

3D Light Intensity Distribution Modal

Lum. Name: LED LUMINAIRE	Lum. Catalog: 9012 - 60 deg	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

IES Indoor Report

Photometric Filename:LG- 9012 60° 9w .IES

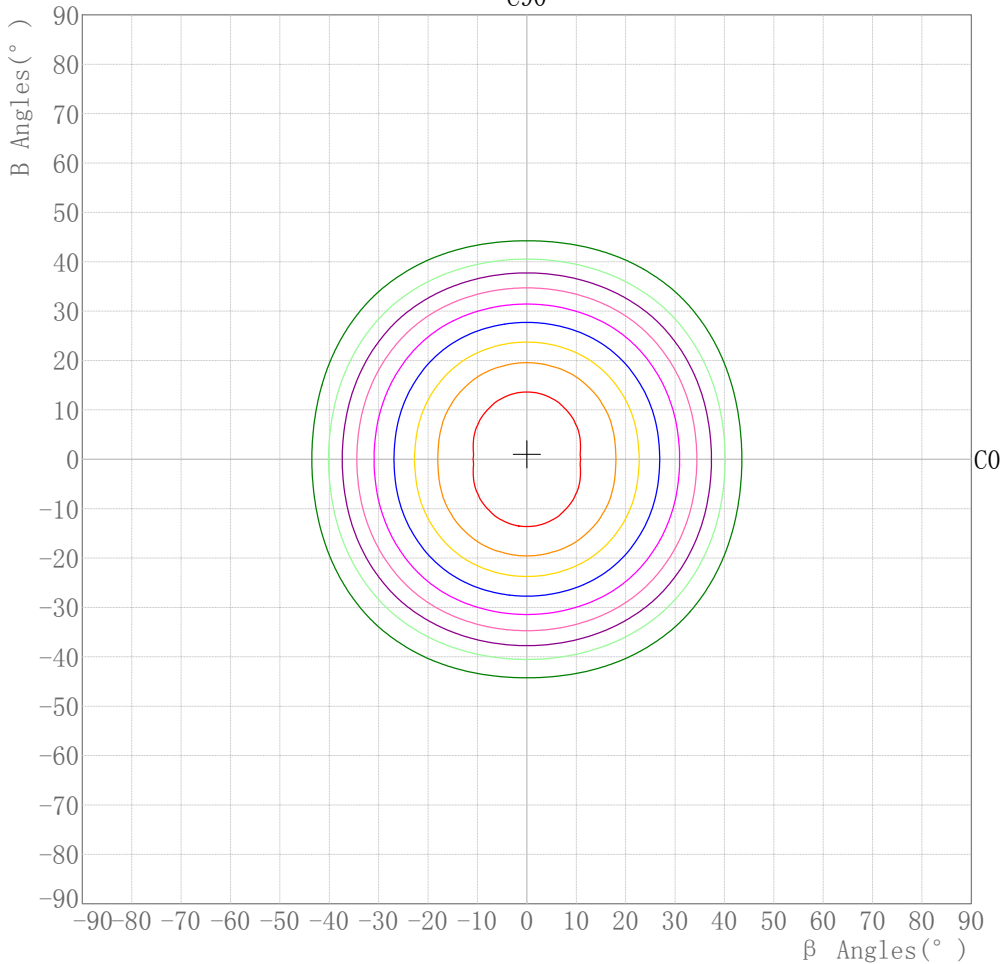
Zonal Flux Tabulation

Zone(γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-1.0	1.63	1.63	0.09	0.09
1.0-3.0	12.95	14.57	0.75	0.85
3.0-5.0	25.65	40.22	1.49	2.34
5.0-7.0	38.04	78.26	2.21	4.56
7.0-9.0	49.91	128.18	2.91	7.46
9.0-11.0	61.07	189.24	3.55	11.02
11.0-13.0	71.34	260.58	4.15	15.17
13.0-15.0	80.77	341.35	4.70	19.87
15.0-17.0	89.08	430.42	5.19	25.06
17.0-19.5	120.68	551.11	7.03	32.08
19.5-22.5	153.93	705.03	8.96	41.04
22.5-25.5	158.25	863.28	9.21	50.25
25.5-29.0	183.55	1046.83	10.68	60.94
29.0-33.0	198.25	1245.08	11.54	72.48
33.0-37.5	186.65	1431.73	10.87	83.35
37.5-42.5	130.11	1561.84	7.57	90.92
42.5-47.5	56.72	1618.56	3.30	94.22
47.5-55.0	39.98	1658.54	2.33	96.55
55.0-65.0	31.56	1690.10	1.84	98.39
65.0-75.0	16.75	1706.86	0.98	99.36
75.0-85.0	9.30	1716.16	0.54	99.90
85.0-90.0	1.64	1717.80	0.10	100.00

Rectangle ISO Lighting Intensity Diagram

Lum. Name: LED LUMINAIRE	Lum. Catalog: 9012 - 60 deg	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
 C90



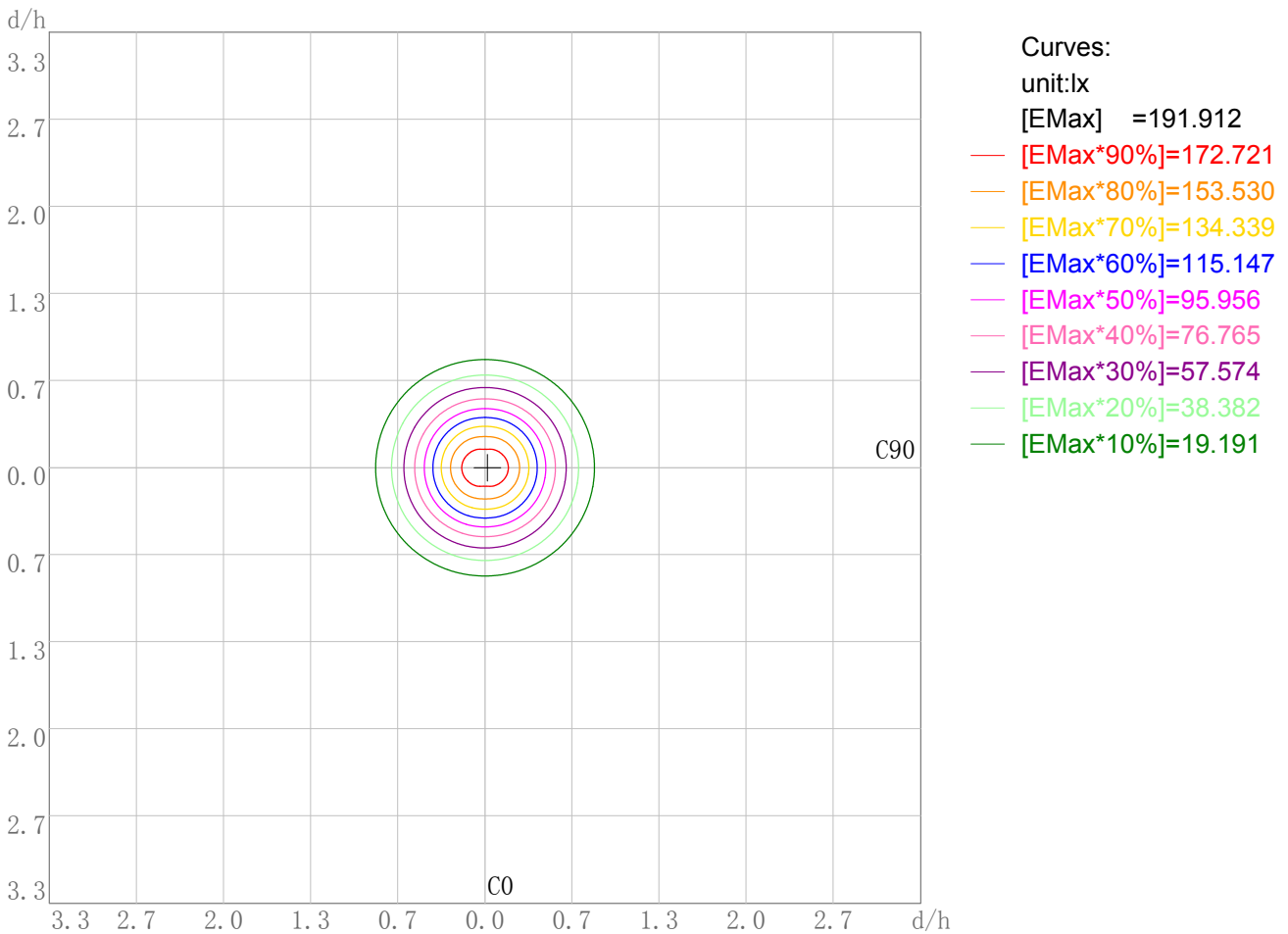
- Curves:
 [Unit: cd]
 [IMax] =1728.000
- [IMax*90%]=1555.200
 - [IMax*80%]=1382.400
 - [IMax*70%]=1209.600
 - [IMax*60%]=1036.800
 - [IMax*50%]=864.000
 - [IMax*40%]=691.200
 - [IMax*30%]=518.400
 - [IMax*20%]=345.600
 - [IMax*10%]=172.800

Maximum Light Intensity(cd): 1728.00
 Maximum Cand.@Angle: H=0.0°,V=1.0°

Plane ISO-Illuminance Diagram

Lum. Name: LED LUMINAIRE	Lum. Catalog: 9012 - 60 deg	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

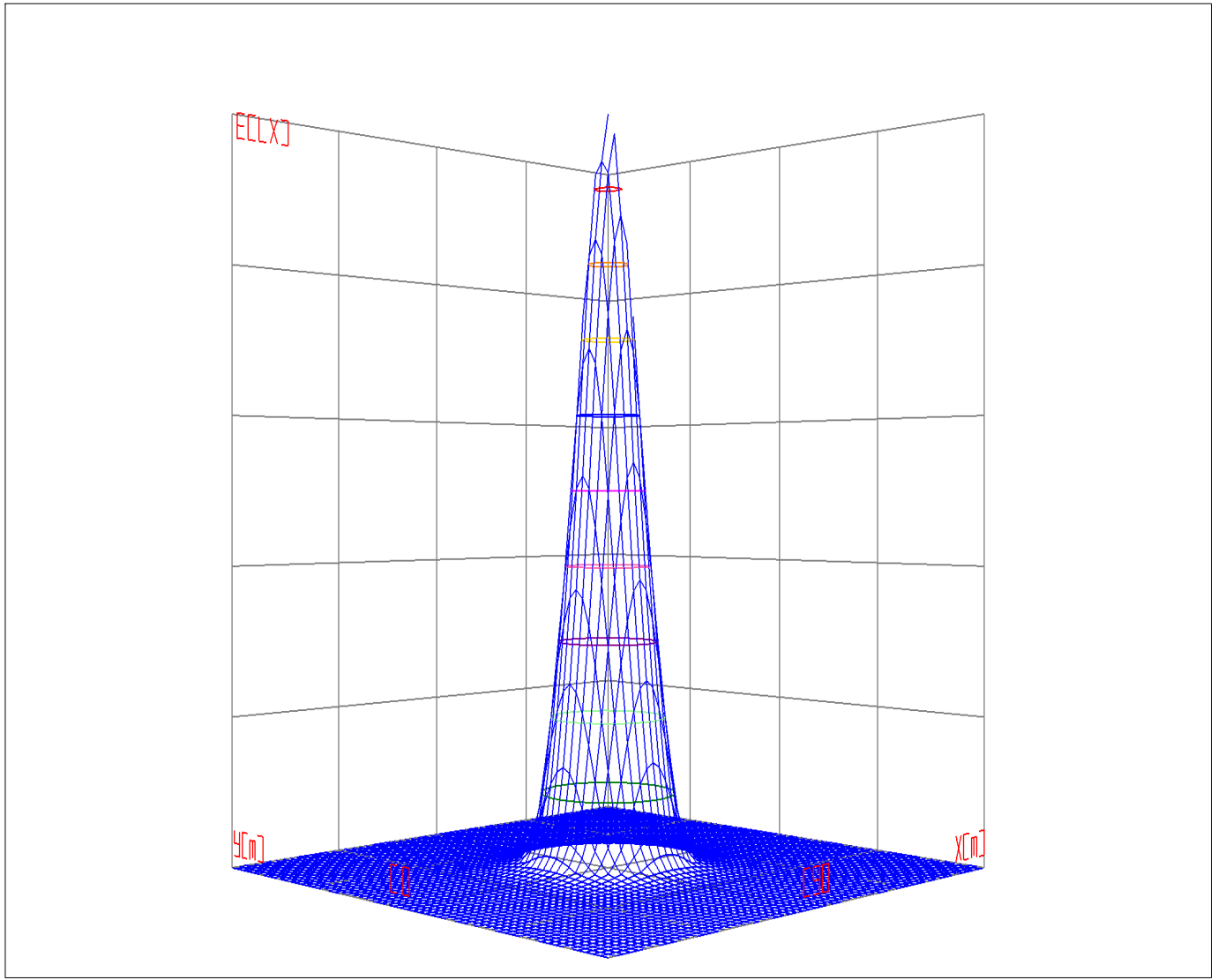


Working Plane Luminaire Mounting Height(m): 3.00
Working Plane Maximum Illuminance(lx): 191.91
Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

3D Plane ISO Illuminance Diagram

Lum. Name: LED LUMINAIRE	Lum. Catalog: 9012 - 60 deg	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

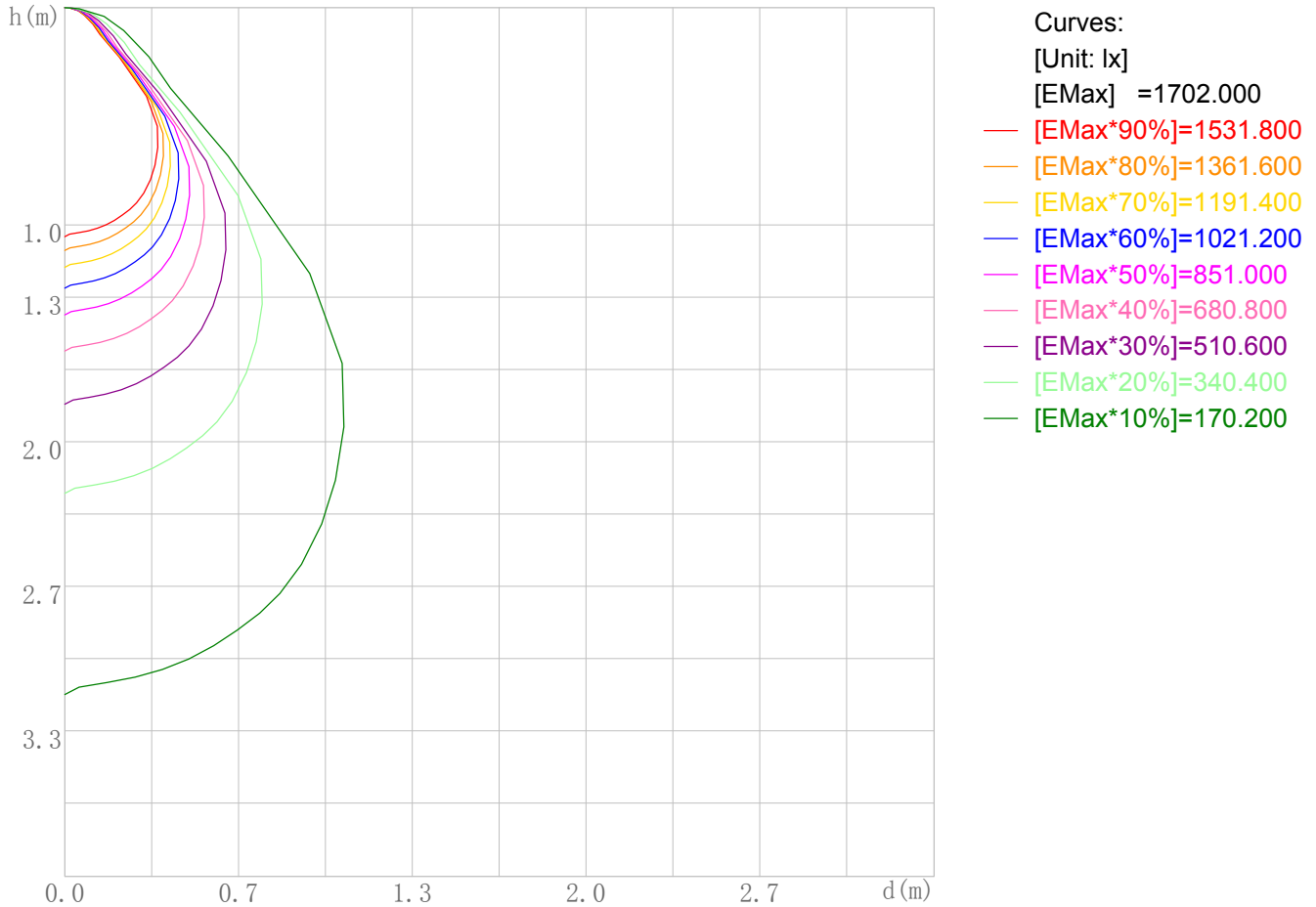


Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

Space ISO Illuminance Diagram

Lum. Name: LED LUMINAIRE	Lum. Catalog: 9012 - 60 deg	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

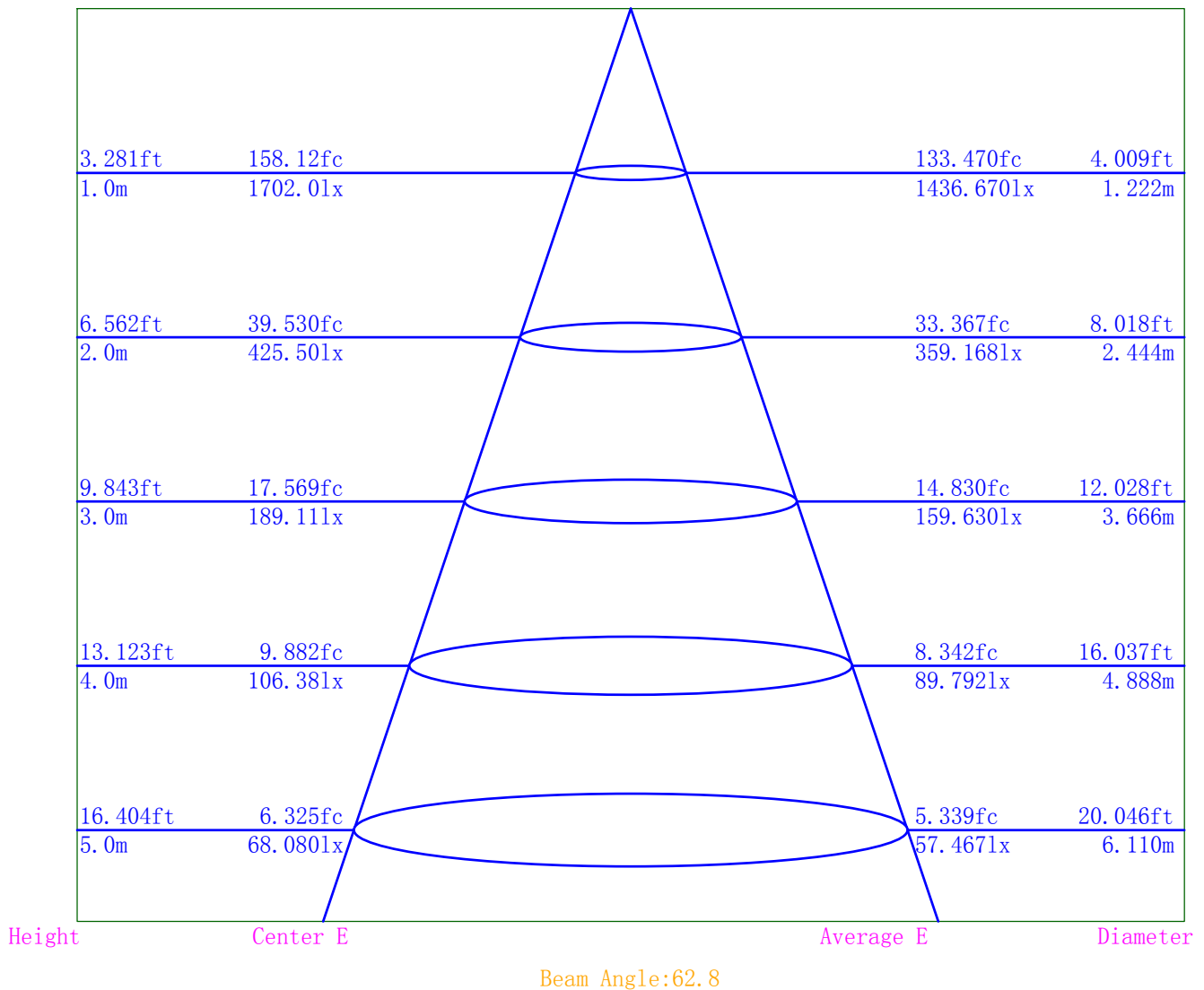


Space Plane Maximum Illuminance and @Angle:1702.00lx,0.0deg
 Plane Maximum Lighting Intensity and @Angle:1702.000cd,0deg

Illuminance-Distance Diagram

Lum. Name: LED LUMINAIRE	Lum. Catalog: 9012 - 60 deg	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: 9012 - 60 deg	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

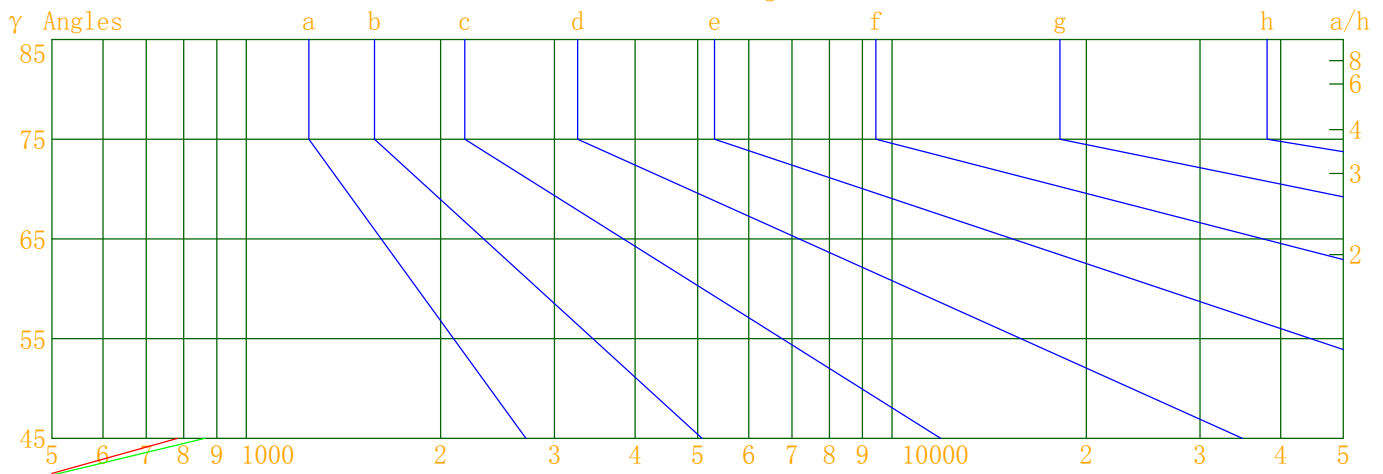
Glare Grade Table

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	783	415	324	287	239	242	250	256	278
C90	863	413	289	230	153	148	140	175	278

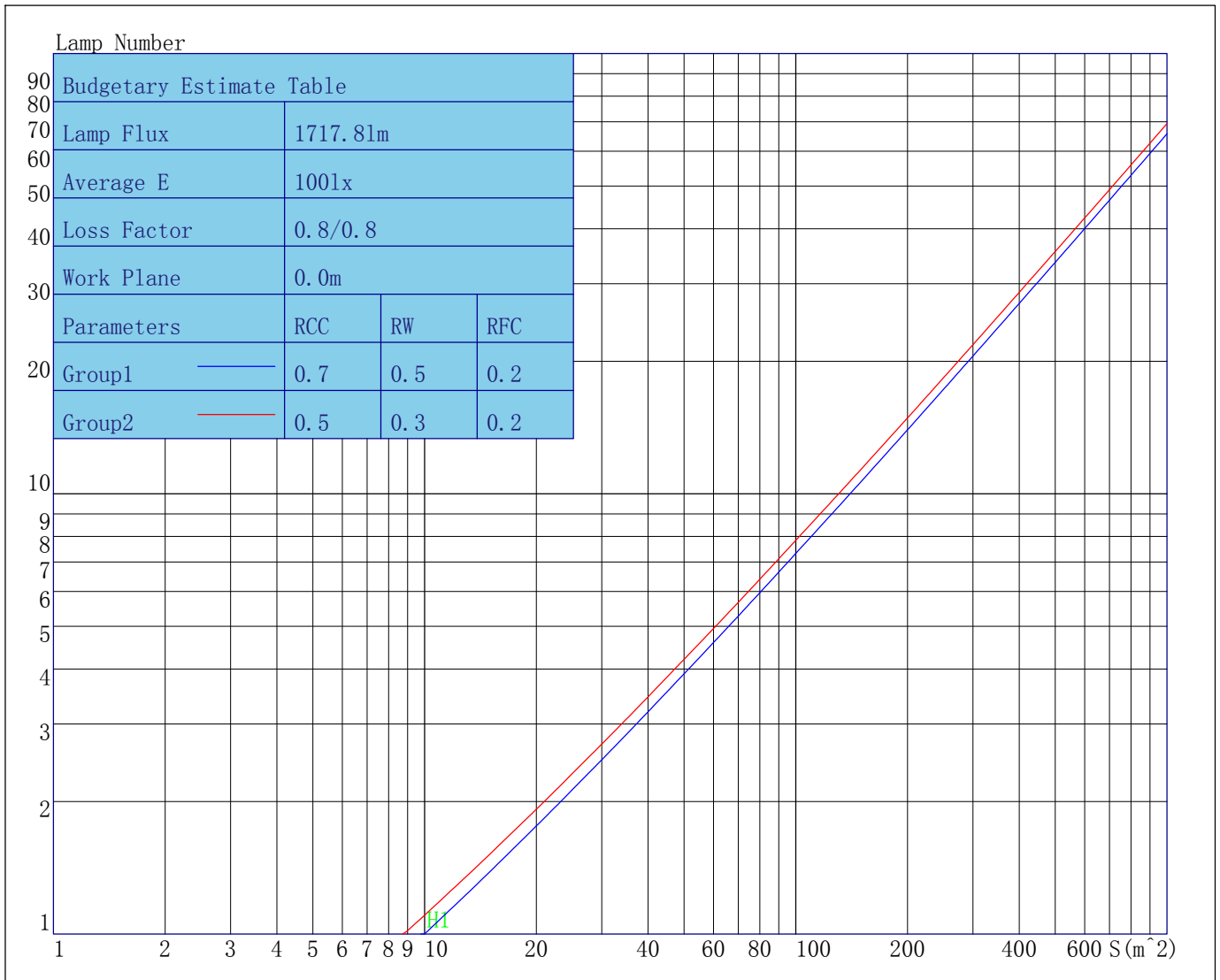
Luminance Limiting Curve



Luminous Size: Length(m)=0.750 Width(m)=0.330 Height(m)=0.000 Area(m^2)=0.247500
 Luminous Type: Without Luminous Side
 Luminous Curves: C0-C180 Color: — C90-C270 Color: —

Indoor Budgetary Estimate Table

Lum. Name: LED LUMINAIRE	Lum. Catalog: 9012 - 60 deg	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: 9012 - 60 deg	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	110	108	105	103	104	102	100	100	98	97	96	95	94	92			
2	107	102	97	94	105	100	96	92	97	93	90	93	91	88	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	75	70	79	73	70	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	79	70	64	60	69	64	60	68	63	59	67	62	59	58			
8	77	67	60	56	75	66	60	56	65	59	56	64	59	55	63	58	55	54			
9	73	63	56	52	72	62	56	52	61	56	52	60	55	52	59	55	52	50			
10	69	59	53	49	68	59	53	49	58	52	49	57	52	48	56	52	48	47			

IES Indoor Report
Photometric Filename:LG- 9012 60° 9w .IES

Unified Glare Rating Table

Lum. Name: LED LUMINAIRE	Lum. Catalog: 9012 - 60 deg	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	Viewed crosswise					Viewed endwise				
X=2H Y=2H	8.8	9.8	9.2	10.2	10.5	8.9	9.9	9.2	10.2	10.5
Y=3H	8.9	9.8	9.2	10.1	10.5	8.8	9.7	9.2	10.0	10.4
Y=4H	8.9	9.8	9.3	10.1	10.5	8.7	9.6	9.1	9.9	10.3
Y=6H	9.0	9.8	9.4	10.2	10.6	8.7	9.5	9.1	9.9	10.3
Y=8H	9.0	9.8	9.5	10.2	10.6	8.7	9.4	9.1	9.8	10.2
Y=12H	9.1	9.8	9.5	10.1	10.6	8.7	9.4	9.2	9.8	10.2
X=4H Y=2H	8.6	9.5	9.0	9.8	10.2	8.7	9.5	9.1	9.9	10.3
Y=3H	8.8	9.5	9.2	9.9	10.3	8.6	9.3	9.1	9.7	10.1
Y=4H	8.9	9.5	9.3	9.9	10.4	8.6	9.2	9.1	9.7	10.1
Y=6H	9.1	9.6	9.6	10.1	10.5	8.6	9.2	9.1	9.6	10.1
Y=8H	9.2	9.6	9.6	10.1	10.6	8.7	9.2	9.1	9.6	10.1
Y=12H	9.2	9.6	9.7	10.1	10.6	8.7	9.2	9.2	9.6	10.1
X=8H Y=4H	8.8	9.3	9.3	9.7	10.2	8.5	9.0	9.0	9.5	9.9
Y=6H	9.0	9.4	9.5	9.9	10.4	8.6	9.0	9.1	9.5	10.0
Y=8H	9.2	9.5	9.7	10.0	10.5	8.7	9.0	9.2	9.5	10.0
Y=12H	9.3	9.6	9.8	10.1	10.7	8.8	9.1	9.3	9.6	10.2
X=12H Y=4H	8.7	9.2	9.2	9.7	10.1	8.5	8.9	9.0	9.4	9.9
Y=6H	9.0	9.3	9.5	9.8	10.4	8.6	8.9	9.1	9.4	9.9
Y=8H	9.2	9.5	9.7	10.0	10.6	8.7	9.0	9.2	9.5	10.1
Variations with the objerver position at spacings										
S=1.0H	0.3/-0.3					0.2/-0.2				
S=1.5H	0.5/-0.5					0.3/-0.3				
S=2.0H	0.7/-0.8					0.5/-0.5				
Reduced UGR Table:										
Nordic Standard Table:	BKO					BKO				
Correction Value	0.8					0.5				

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

IES Indoor Report
Photometric Filename:LG- 9012 60° 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	1702.00	1702.00	1702.00	1702.00	1702.00	1702.00	1702.00	1702.00	1702.00	1702.00	1702.00	1702.00
γ 1.0	1667.00	1668.00	1671.00	1675.00	1679.00	1684.00	1688.00	1691.00	1696.00	1699.00	1703.00	1708.00
γ 3.0	1650.00	1651.00	1654.00	1659.00	1663.00	1668.00	1672.00	1676.00	1681.00	1684.00	1688.00	1693.00
γ 5.0	1636.00	1637.00	1640.00	1645.00	1649.00	1653.00	1658.00	1661.00	1666.00	1670.00	1674.00	1679.00
γ 7.0	1616.00	1616.00	1619.00	1624.00	1628.00	1633.00	1637.00	1641.00	1646.00	1649.00	1653.00	1658.00
γ 9.0	1589.00	1588.00	1592.00	1597.00	1602.00	1607.00	1610.00	1614.00	1619.00	1622.00	1627.00	1631.00
γ 11.0	1553.00	1552.00	1556.00	1560.00	1565.00	1571.00	1575.00	1579.00	1584.00	1587.00	1590.00	1594.00
γ 13.0	1511.00	1511.00	1515.00	1519.00	1524.00	1529.00	1534.00	1537.00	1543.00	1546.00	1550.00	1553.00
γ 15.0	1468.00	1469.00	1473.00	1478.00	1483.00	1486.00	1492.00	1496.00	1501.00	1504.00	1507.00	1510.00
γ 17.0	1416.00	1416.00	1419.00	1423.00	1427.00	1433.00	1438.00	1441.00	1445.00	1449.00	1452.00	1456.00
γ 19.5	1335.00	1335.00	1339.00	1344.00	1349.00	1355.00	1358.00	1361.00	1367.00	1369.00	1372.00	1376.00
γ 22.5	1220.00	1219.00	1222.00	1227.00	1231.00	1235.00	1239.00	1243.00	1246.00	1250.00	1253.00	1256.00
γ 25.5	1096.00	1095.00	1099.00	1103.00	1107.00	1110.00	1113.00	1115.00	1120.00	1124.00	1127.00	1130.00
γ 29.0	948.00	949.00	951.00	955.00	957.00	961.00	964.00	967.00	972.00	974.00	977.00	979.00
γ 33.0	774.00	774.00	776.00	779.00	780.00	782.00	784.00	785.00	788.00	790.00	792.00	793.00
γ 37.5	511.00	512.00	513.00	517.00	519.00	520.00	523.00	524.00	527.00	530.00	530.00	530.00
γ 42.5	198.00	198.00	199.00	201.00	203.00	205.00	207.00	210.00	213.00	216.00	217.00	219.00
γ 47.5	76.00	76.00	77.00	77.00	78.00	78.00	79.00	79.00	80.00	80.00	81.00	82.00
γ 55.0	46.00	46.00	46.00	47.00	47.00	47.00	47.00	47.00	47.00	47.00	47.00	46.00
γ 65.0	25.00	25.00	25.00	25.00	26.00	26.00	26.00	25.00	24.00	22.00	21.00	19.00
γ 75.0	16.00	16.00	16.00	16.00	16.00	14.00	12.00	10.00	9.00	9.00	9.00	9.00
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	1702.00	1702.00	1702.00	1702.00	1702.00	1702.00	1702.00					
γ 1.0	1712.00	1717.00	1720.00	1724.00	1726.00	1727.00	1728.00					
γ 3.0	1697.00	1702.00	1705.00	1708.00	1710.00	1711.00	1711.00					
γ 5.0	1683.00	1688.00	1692.00	1695.00	1698.00	1699.00	1699.00					
γ 7.0	1663.00	1667.00	1671.00	1674.00	1677.00	1678.00	1679.00					
γ 9.0	1635.00	1639.00	1643.00	1646.00	1648.00	1650.00	1650.00					
γ 11.0	1599.00	1603.00	1606.00	1609.00	1610.00	1612.00	1613.00					
γ 13.0	1558.00	1561.00	1563.00	1566.00	1568.00	1569.00	1569.00					
γ 15.0	1515.00	1518.00	1520.00	1522.00	1523.00	1524.00	1525.00					
γ 17.0	1460.00	1462.00	1465.00	1466.00	1467.00	1468.00	1469.00					
γ 19.5	1379.00	1381.00	1382.00	1382.00	1384.00	1385.00	1385.00					
γ 22.5	1259.00	1260.00	1260.00	1262.00	1263.00	1263.00	1262.00					
γ 25.5	1131.00	1132.00	1132.00	1132.00	1132.00	1133.00	1133.00					
γ 29.0	980.00	981.00	981.00	981.00	981.00	981.00	981.00					
γ 33.0	792.00	791.00	789.00	789.00	789.00	788.00	788.00					
γ 37.5	531.00	531.00	531.00	532.00	532.00	533.00	533.00					
γ 42.5	221.00	222.00	223.00	224.00	224.00	224.00	224.00					
γ 47.5	83.00	83.00	83.00	81.00	79.00	78.00	78.00					
γ 55.0	45.00	44.00	43.00	42.00	42.00	41.00	41.00					
γ 65.0	18.00	17.00	16.00	16.00	16.00	16.00	16.00					
γ 75.0	9.00	9.00	9.00	9.00	9.00	9.00	9.00					
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					