

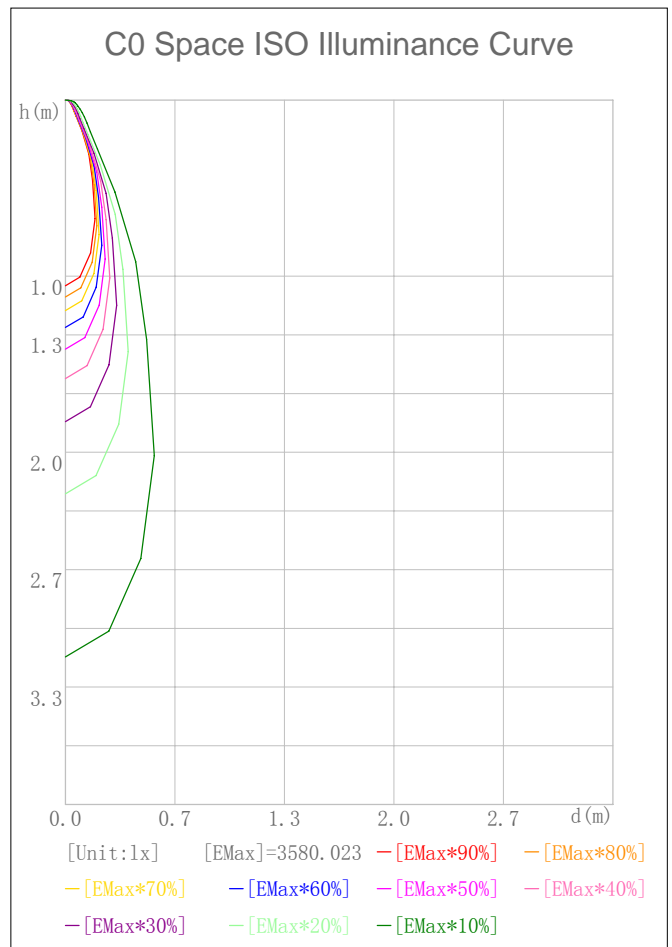
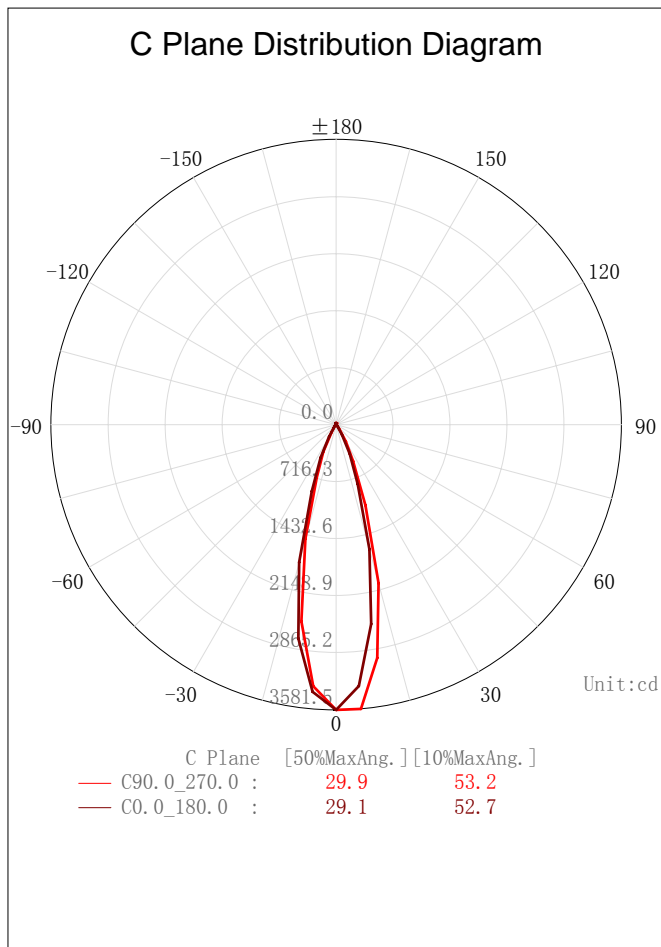
Indoor Luminaire Photometric Data

Description Information

Luminaire Name:LG-7010	Lum. Catalog:Grille light	Test ID:
Lamp Name:	Lamp Catalog:LED	Test Date: 2017/08/08
Manufacture:	Shld. Ang(°):	Test Machine:GON-2000
Test Lab:	Frequency (Hz):60	Lamp CCT(K): 3000 Ra:
Lum. Size (W*L*H):0.045m*0.280m*0.049m	Lum. Area (m2):0.026	Lum. W(kg): 0.000
Test System: C, γ	Test Step: C=30.0 γ=5.0	Temp. (°C): 25
		Humidity(%): 50.0

Character Parameter

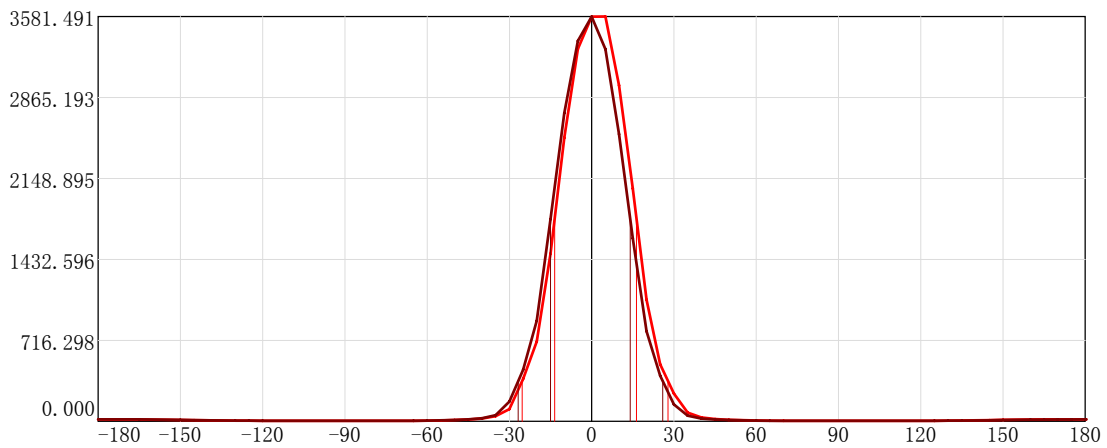
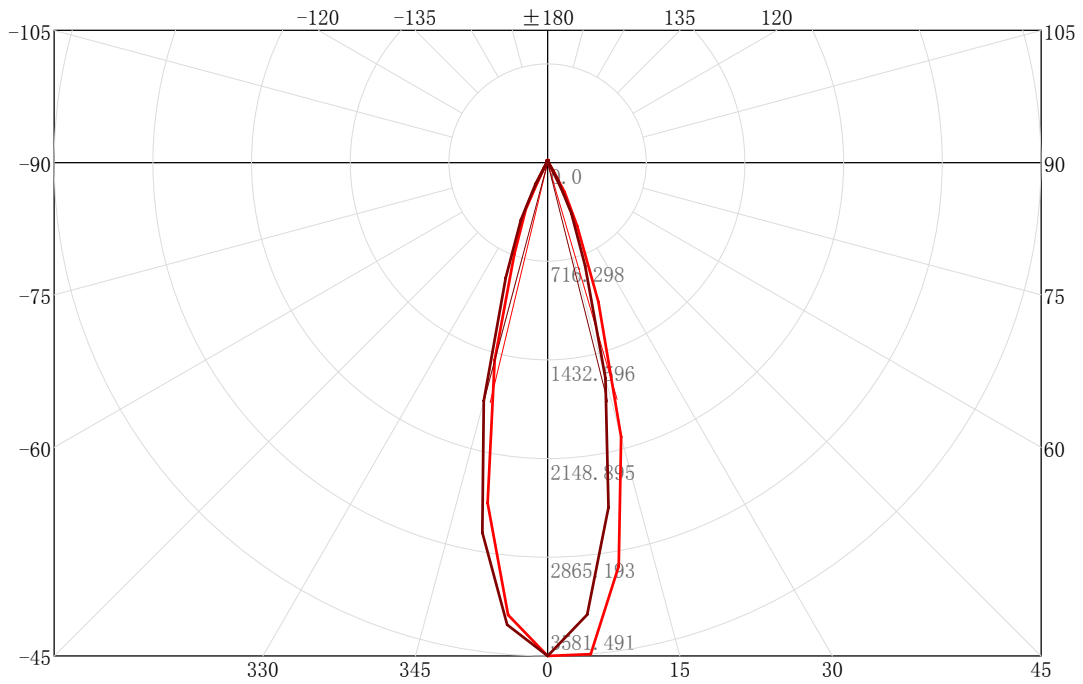
Lamp Speciality Parameter		Luminaire Speciality Parameter	
Rated Flux(lm): 1127.480	Luminaire Flux(lm): 1127.478	Field Angle(10%Imax): 53.2(°)	
Rated Power(W): 20	Luminaire Efficiency: 100.00%	Down Lumens&Percent: 1077.444lm 95.56%	
Rated Voltage(V): 120	Luminaire EER(lm/W): 49.955	Up Lumens&Percent: 50.034lm 4.44%	
Tested Power(W): 22.570	Max. Candela(cd): 3581.491	S/MH: C0_a180=0.487 C90_270=0.503	
Lamps' Inside: 1	Max Cand@Ang. (°): C=90.0 γ=5.0	CIE Type: Semi-Direct	
Tested Electrics (V, A, pf):120.8, 0.206, 0.989	Beam Angle(50%Imax): 29.9(°)	ErP φ use(90°): 1051.527lm	
Lamp Size (W*L*H):0.045m*0.280m*0.049m	Left=-13.5°, Right=16.4°	IRF(%): 734.662	



2D Plane Light Intensity Distribution Curve

Lum. Name: LG-7010	Lum. Catalog: Grille light	Test ID:
Lamp Name:	Lamp Catalog:LED	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date:2017/08/08

C Plane Distribution Diagram

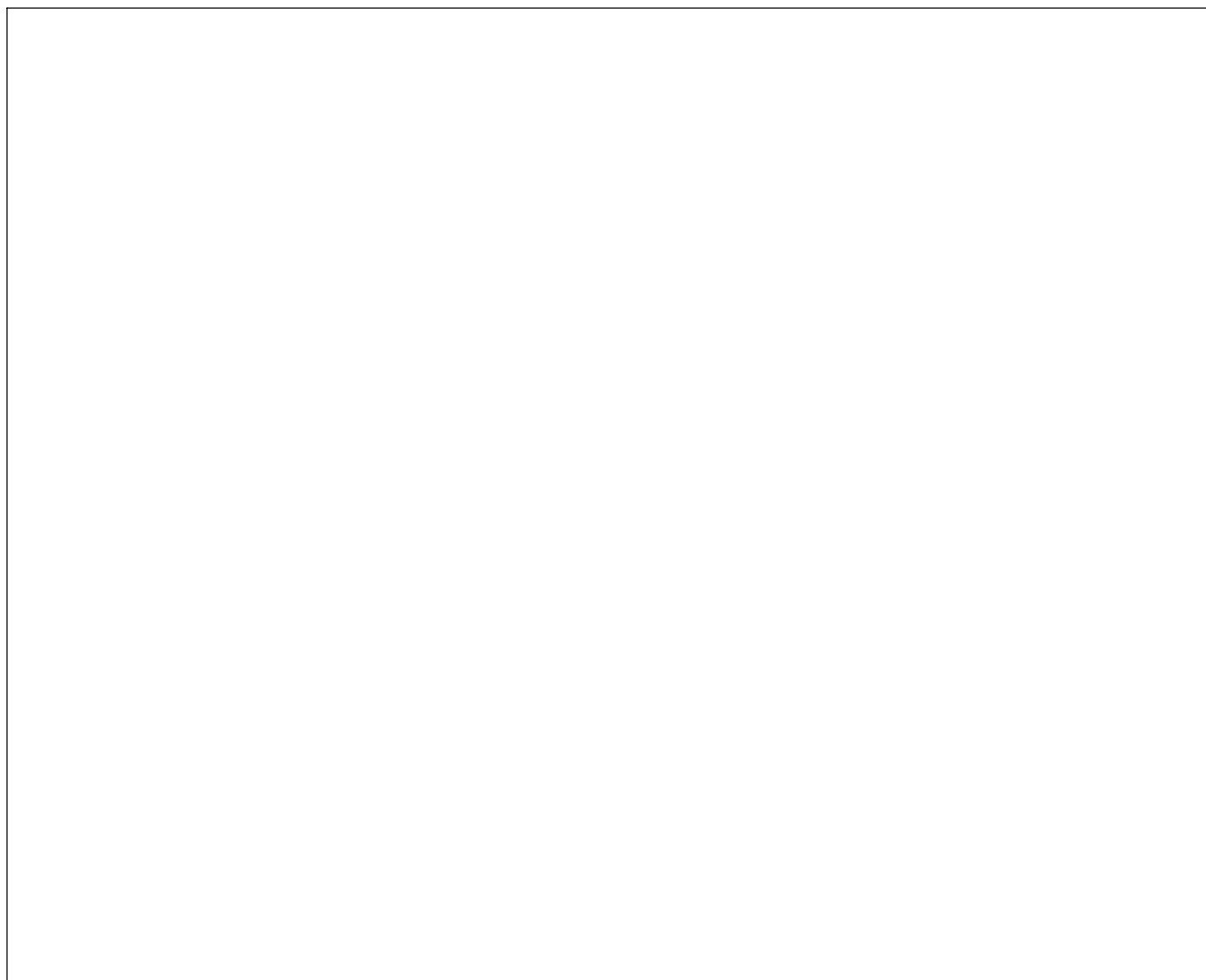


C Plane [50%MaxAng.] [10%MaxAng.] Unit:cd
 — C90.0_270.0 : 29.9 53.2
 — C0.0_180.0 : 29.1 52.7

3D Light Intensity Distribution Modal

Lum. Name: LG-7010	Lum. Catalog: Grille light	Test ID:
Lamp Name:	Lamp Catalog:LED	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date:2017/08/08

3D Light Intensity Distribution Modal



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

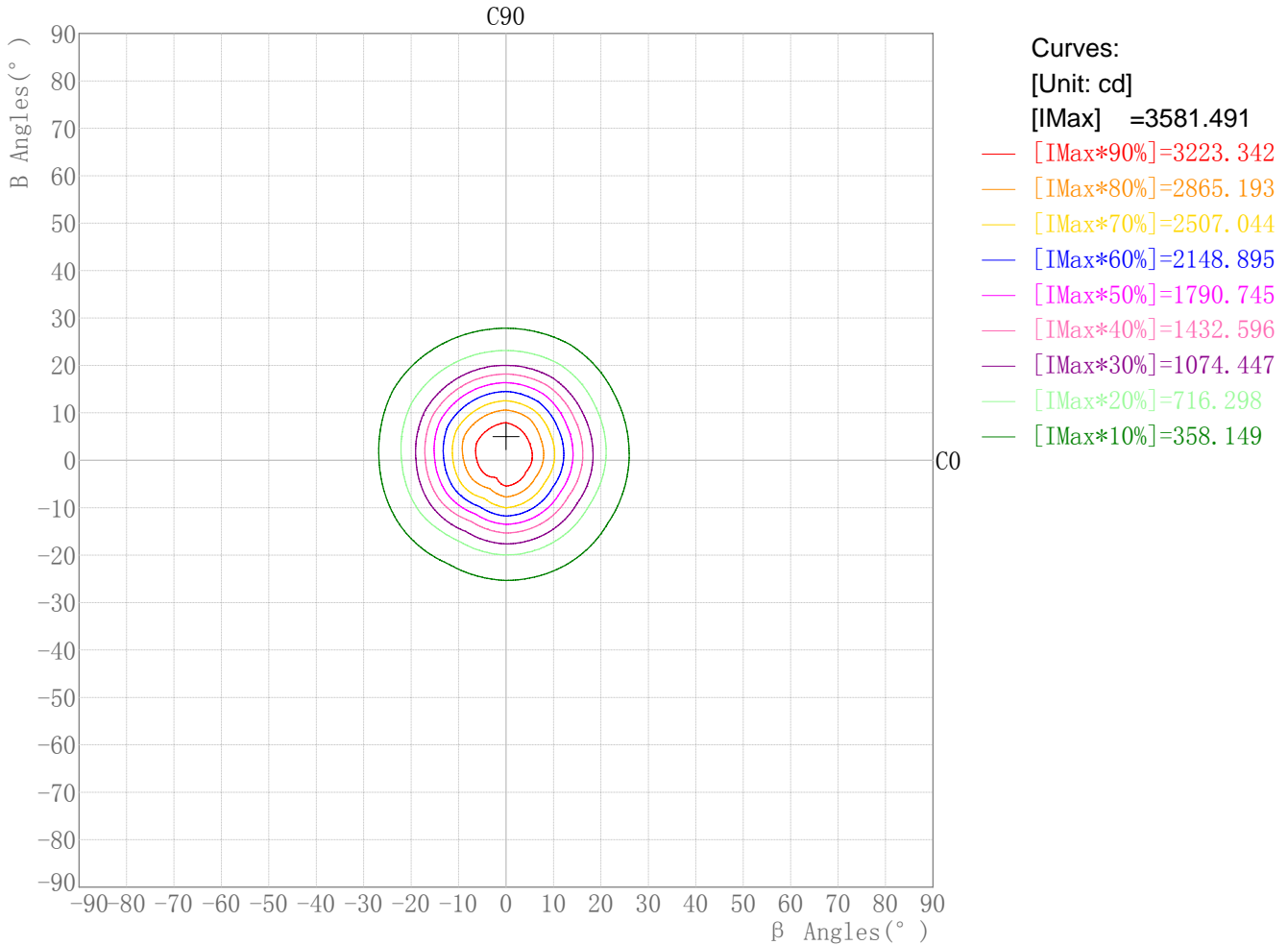
Zonal Flux Tabulation

Zone(γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-5.0	82.88	82.88	7.35	7.35
5.0-10.0	215.23	298.12	19.09	26.44
10.0-15.0	260.21	558.32	23.08	49.52
15.0-20.0	213.30	771.62	18.92	68.44
20.0-25.0	136.13	907.75	12.07	80.51
25.0-30.0	76.35	984.10	6.77	87.28
30.0-35.0	33.86	1017.97	3.00	90.29
35.0-40.0	15.11	1033.08	1.34	91.63
40.0-45.0	9.41	1042.49	0.83	92.46
45.0-50.0	6.80	1049.29	0.60	93.07
50.0-55.0	5.31	1054.60	0.47	93.54
55.0-60.0	4.31	1058.91	0.38	93.92
60.0-65.0	3.56	1062.47	0.32	94.23
65.0-70.0	3.05	1065.52	0.27	94.50
70.0-75.0	2.91	1068.43	0.26	94.76
75.0-80.0	2.97	1071.40	0.26	95.03
80.0-85.0	3.01	1074.41	0.27	95.29
85.0-90.0	3.04	1077.44	0.27	95.56
90.0-95.0	3.04	1080.48	0.27	95.83
95.0-100.0	3.03	1083.51	0.27	96.10
100.0-105.0	3.00	1086.51	0.27	96.37
105.0-110.0	2.94	1089.45	0.26	96.63
110.0-115.0	2.88	1092.33	0.26	96.88
115.0-120.0	2.83	1095.16	0.25	97.13
120.0-125.0	2.83	1097.99	0.25	97.38
125.0-130.0	2.90	1100.89	0.26	97.64
130.0-135.0	3.05	1103.93	0.27	97.91
135.0-140.0	3.26	1107.19	0.29	98.20
140.0-145.0	3.46	1110.65	0.31	98.51
145.0-150.0	3.58	1114.23	0.32	98.83
150.0-155.0	3.53	1117.76	0.31	99.14
155.0-160.0	3.25	1121.01	0.29	99.43
160.0-165.0	2.74	1123.76	0.24	99.67
165.0-170.0	2.05	1125.80	0.18	99.85
170.0-175.0	1.25	1127.05	0.11	99.96
175.0-180.0	0.42	1127.48	0.04	100.00

Rectangle ISO Lighting Intensity Diagram

Lum. Name: LG-7010	Lum. Catalog: Grille light	Test ID:
Lamp Name:	Lamp Catalog:LED	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date:2017/08/08

ISO Lighting Intensity Curve

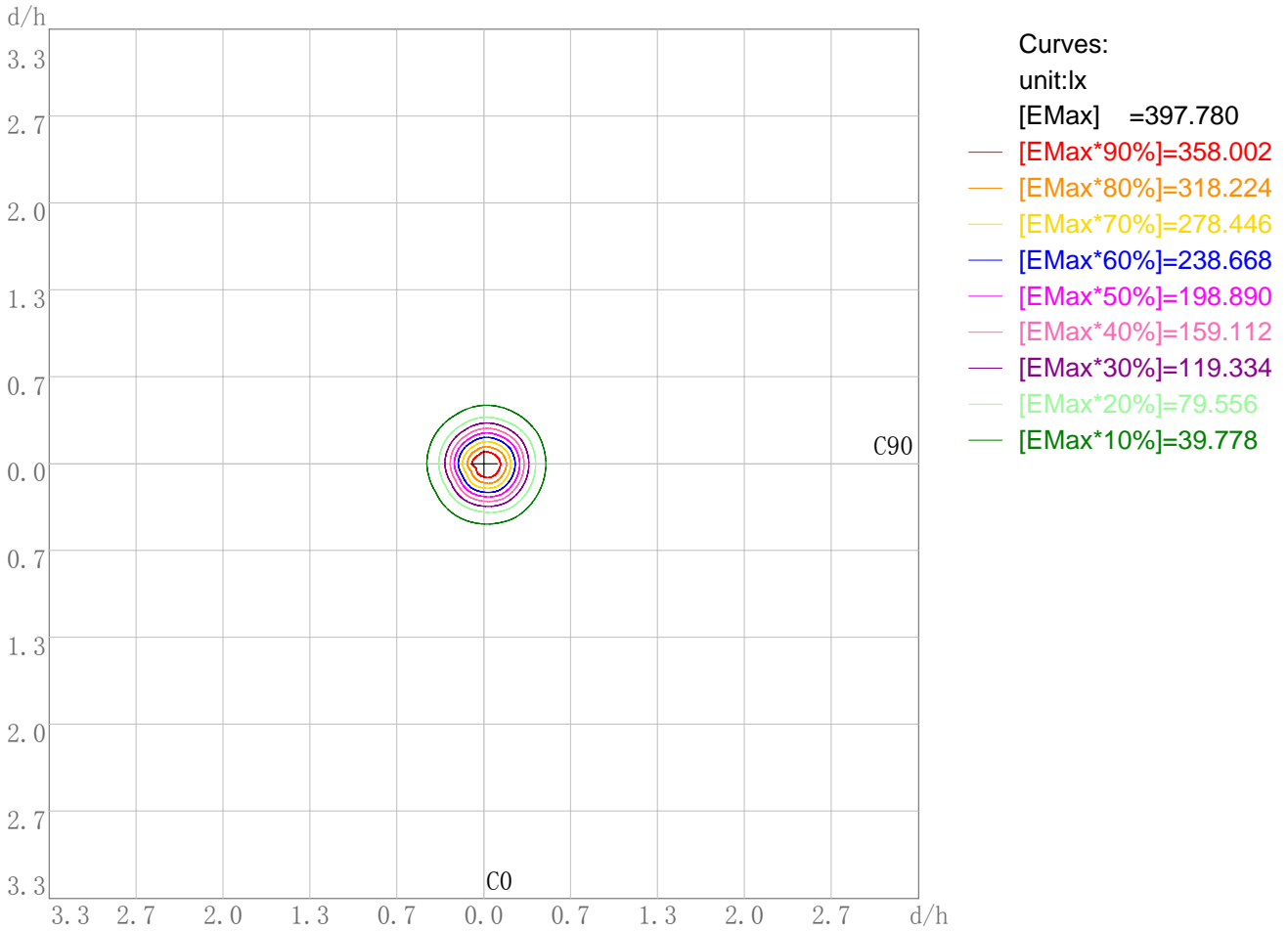


Maximum Light Intensity(cd): 3581.49
Maximum Cand.@Angle: H=0.0°,V=5.0°

Plane ISO-Illuminance Diagram

Lum. Name: LG-7010	Lum. Catalog: Grille light	Test ID:
Lamp Name:	Lamp Catalog:LED	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date:2017/08/08

Plane ISO-Illuminance Curve

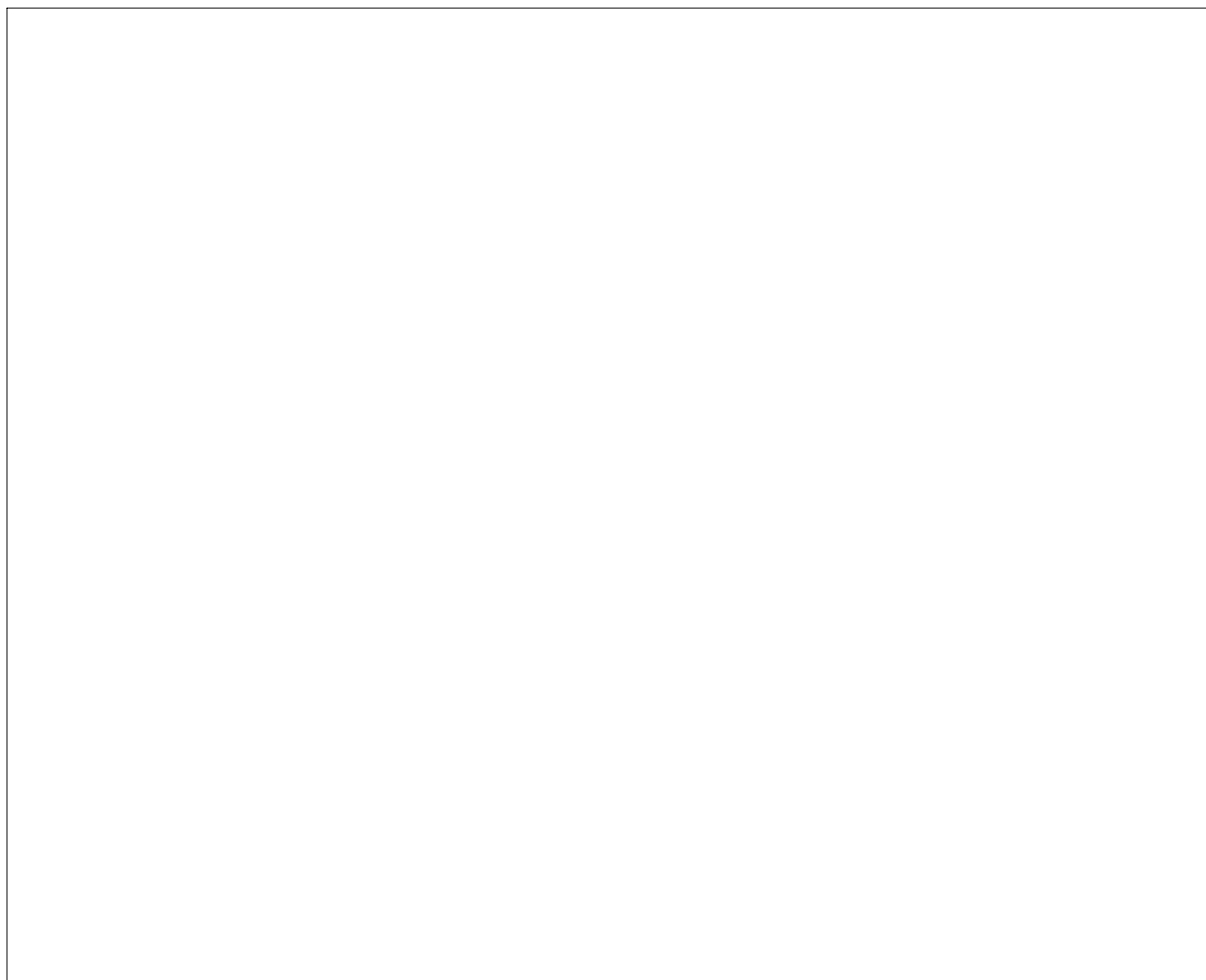


Working Plane Luminaire Mounting Height(m): 3.00
 Working Plane Maximum Illuminance(lx): 397.78
 Working Plane Maximum Illuminance Position(d/h):H0.0 V0.0

3D Plane ISO Illuminance Diagram

Lum. Name: LG-7010	Lum. Catalog: Grille light	Test ID:
Lamp Name:	Lamp Catalog:LED	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date:2017/08/08

3D Plane Illuminance Modal

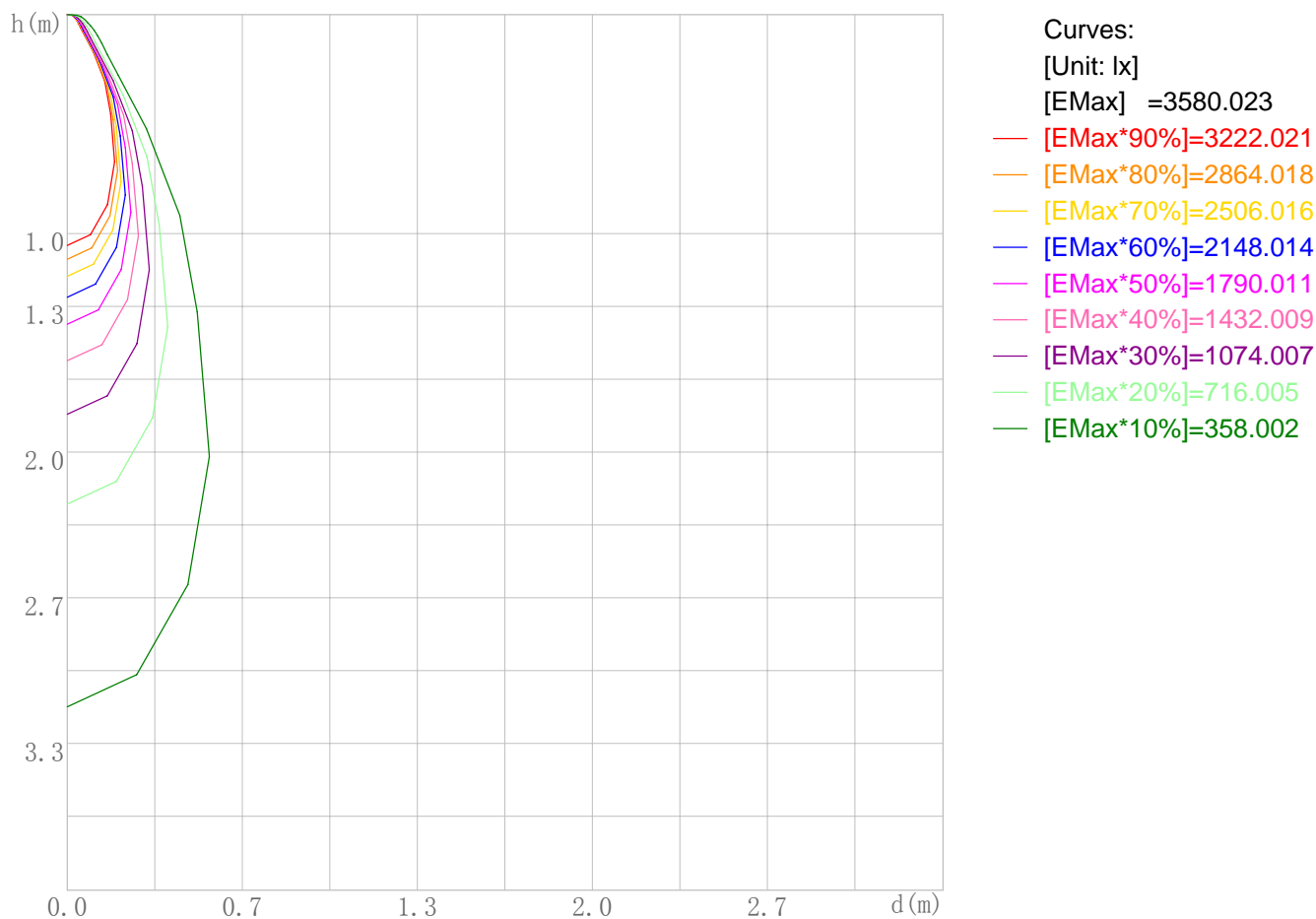


Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

Space ISO Illuminance Diagram

Lum. Name: LG-7010	Lum. Catalog: Grille light	Test ID:
Lamp Name:	Lamp Catalog:LED	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date:2017/08/08

Space ISO Illuminance Curve

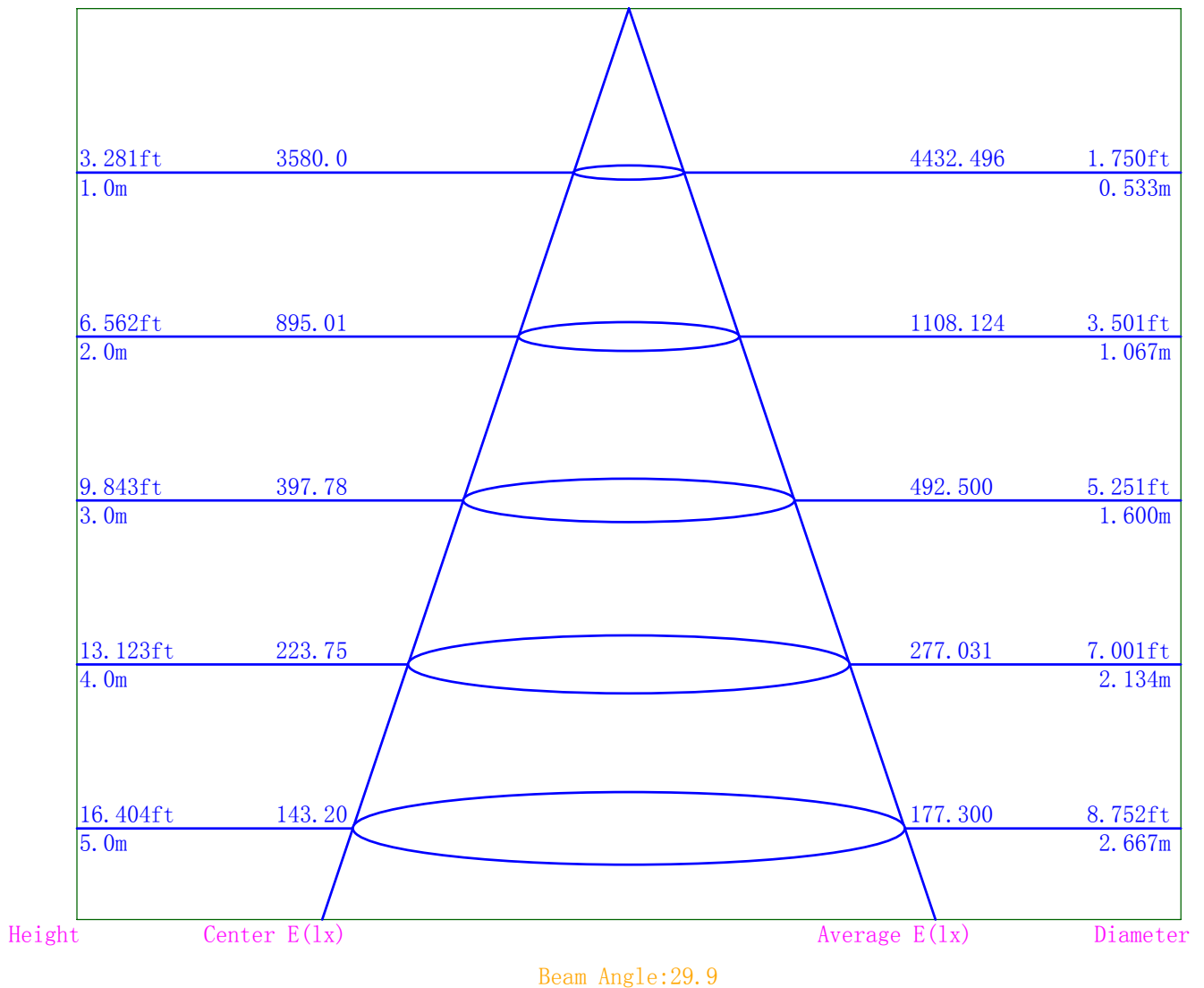


Space Plane Maximum Illuminance and @Angle:3580.02lx,0.0deg
 Plane Maximum Lighting Intensity and @Angle:3580.023cd,0deg

Illuminance-Distance Diagram

Lum. Name: LG-7010	Lum. Catalog: Grille light	Test ID:
Lamp Name:	Lamp Catalog:LED	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date:2017/08/08

Illuminance-Distance Curve



Indoor Luminance Limiting Curves

Lum. Name: LG-7010	Lum. Catalog: Grille light	Test ID:
Lamp Name:	Lamp Catalog:LED	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date:2017/08/08

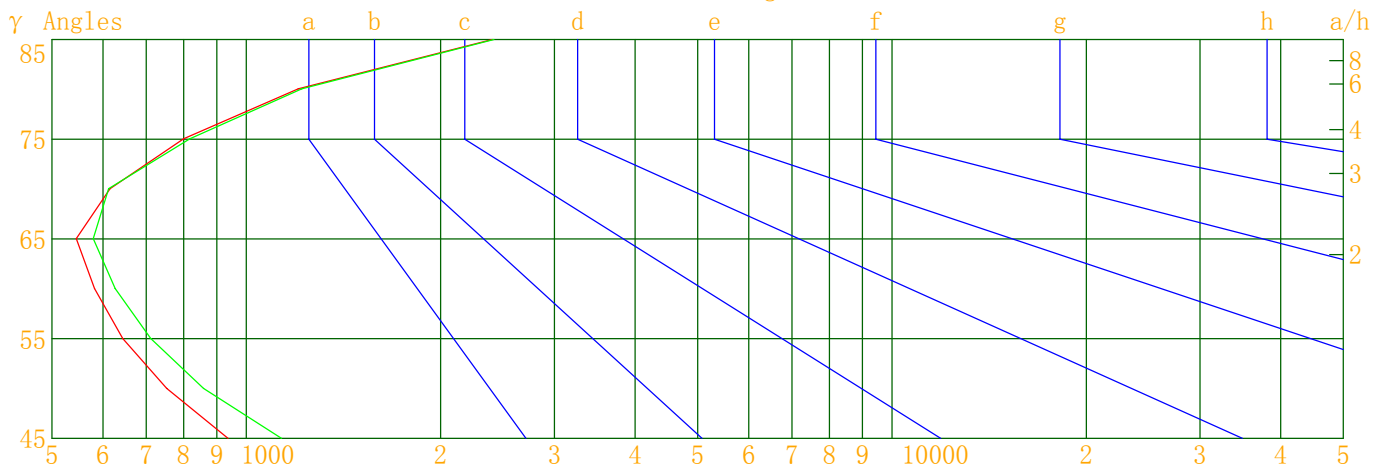
Glare Grade Table

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	937	753	643	582	545	615	800	1204	2404
C90	1133	858	711	626	579	612	818	1219	2418

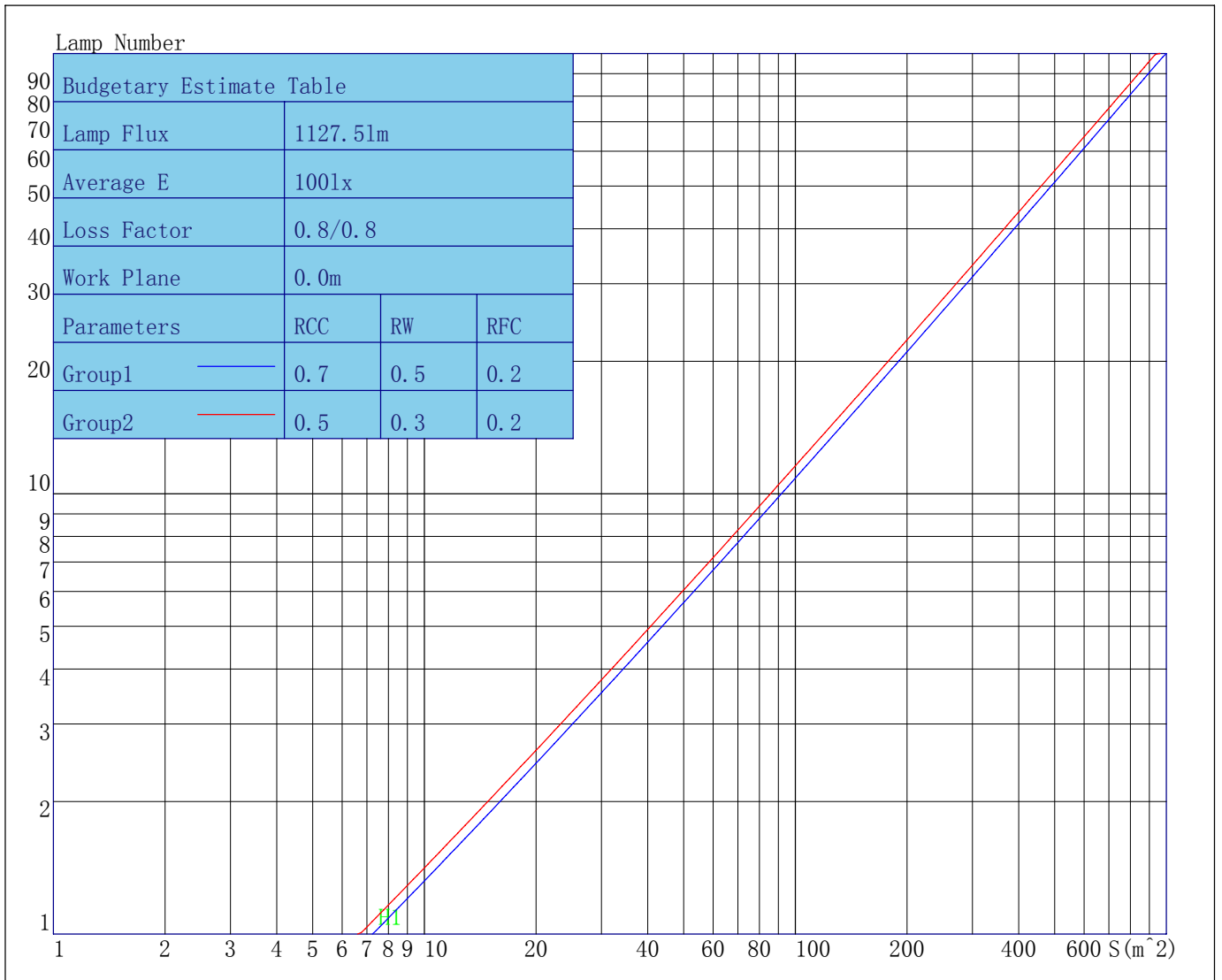
Luminance Limiting Curve



Luminous Size: Length(m)=0.280 Width(m)=0.045 Height(m)=0.049 Area(m²)=0.026320
 Luminous Type: Without Luminous Side
 Luminous Curves: C0-C180 Color: — C90-C270 Color: —

Indoor Budgetary Estimate Table

Lum. Name: LG-7010	Lum. Catalog: Grille light	Test ID:
Lamp Name:	Lamp Catalog:LED	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date:2017/08/08



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: LG-7010	Lum. Catalog: Grille light	Test ID:
Lamp Name:	Lamp Catalog:LED	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date:2017/08/08

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	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	96
1	113	111	108	106	110	108	106	104	103	102	100	99	98	97	95	94	93	91
2	109	104	101	98	106	102	99	97	99	96	94	95	93	91	92	90	89	87
3	104	99	95	92	102	97	94	91	94	91	89	91	89	87	89	87	85	83
4	101	94	90	86	99	93	89	86	90	87	84	88	85	83	86	83	82	80
5	97	90	86	82	95	89	85	82	87	83	80	85	82	79	83	80	78	77
6	94	87	82	78	92	86	81	78	84	80	77	82	79	76	80	78	75	74
7	91	83	78	75	89	82	78	75	81	77	74	79	76	73	78	75	73	72
8	88	80	75	72	86	79	75	72	78	74	71	77	73	71	76	73	70	69
9	85	77	73	70	84	77	72	69	76	72	69	74	71	68	73	70	68	67
10	82	75	70	67	81	74	70	67	73	69	67	72	69	66	71	68	66	65

IES Indoor Report
Photometric Filename:LG-7010.IES

Unified Glare Rating Table

Lum. Name: LG-7010	Lum. Catalog: Grille light	Test ID:
Lamp Name:	Lamp Catalog:LED	Test Lab:
Manufacture:	Test Machine:GON-2000	Test Date:2017/08/08

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	3.8	4.4	3.5	4.1	4.4	6.0	6.6	5.7	6.3	6.6
Y=3H	5.0	5.5	4.7	5.3	5.6	6.6	7.2	6.4	6.9	7.3
Y=4H	6.0	6.5	5.8	6.3	6.7	7.3	7.8	7.1	7.6	7.9
Y=6H	7.5	8.0	7.4	7.8	8.2	8.4	8.9	8.2	8.7	9.1
Y=8H	8.5	8.9	8.4	8.8	9.2	9.1	9.6	9.0	9.5	9.9
Y=12H	9.7	10.1	9.6	10.0	10.4	10.2	10.6	10.1	10.5	11.0
X=4H Y=2H	3.7	4.2	3.5	4.0	4.4	5.8	6.3	5.6	6.1	6.5
Y=3H	5.0	5.5	4.9	5.4	5.8	6.5	7.0	6.5	6.9	7.3
Y=4H	6.2	6.6	6.3	6.7	7.1	7.3	7.7	7.3	7.7	8.2
Y=6H	8.1	8.4	8.2	8.5	9.0	8.7	9.1	8.8	9.2	9.7
Y=8H	9.2	9.6	9.4	9.7	10.2	9.7	10.1	9.9	10.2	10.7
Y=12H	10.7	11.0	10.9	11.2	11.7	11.0	11.3	11.2	11.5	12.0
X=8H Y=4H	8.4	8.8	8.6	8.9	9.4	9.4	9.7	9.5	9.9	10.4
Y=6H	10.1	10.4	10.3	10.6	11.1	10.7	11.0	10.9	11.2	11.7
Y=8H	11.2	11.4	11.5	11.7	12.3	11.7	11.9	12.0	12.2	12.8
Y=12H	12.6	12.8	13.0	13.2	13.8	13.0	13.2	13.3	13.5	14.1
X=12H Y=4H	8.7	9.0	8.9	9.2	9.7	9.6	9.9	9.8	10.1	10.6
Y=6H	10.6	10.8	10.9	11.1	11.7	11.1	11.4	11.4	11.6	12.2
Y=8H	11.9	12.1	12.2	12.4	13.0	12.2	12.4	12.6	12.8	13.4
Variations with the objerver position at spacings										
S=1.0H	0.3/-0.4					0.3/-0.4				
S=1.5H	0.6/-0.8					0.6/-0.8				
S=2.0H	0.5/-0.8					0.5/-0.8				
Reduced UGR Table:										
Nordic Standard Table:	BKO					BKO				
Correction Value	5.5					4.5				

le is calculated according to the document STD.CIE 117-1995

IES Indoor Report
Photometric Filename:LG-7010.IES

Candela Tabulation

V/H	C0.0	C30.0	C60.0	C90.0	C120.0	C150.0	C180.0	C210.0	C240.0	C270.0	C300.0	C330.0
γ 0.0	3580.02	3580.02	3580.02	3580.02	3580.02	3580.02	3580.02	3580.02	3580.02	3580.02	3580.02	3580.02
γ 5.0	3293.35	3357.44	3451.34	3581.49	3523.00	3477.06	3366.83	3278.75	3149.33	3295.57	3248.75	3213.67
γ 10.0	2540.59	2660.86	2873.71	2973.29	2918.61	2896.45	2726.57	2614.44	2390.63	2508.48	2451.15	2407.71
γ 15.0	1618.93	1745.44	1974.80	2060.37	2032.01	2008.08	1789.57	1642.90	1392.58	1484.07	1472.30	1454.92
γ 20.0	796.41	882.95	1051.57	1075.25	1072.12	1057.87	889.94	802.15	663.64	705.86	696.09	687.89
γ 25.0	405.57	437.90	500.75	505.66	502.10	513.59	457.82	413.80	348.51	375.88	371.52	360.78
γ 30.0	149.92	181.89	235.75	246.95	242.63	235.91	175.09	141.51	103.00	109.44	110.64	113.27
γ 35.0	50.26	64.23	78.27	77.36	72.31	70.36	55.13	54.97	46.38	47.38	48.34	48.41
γ 40.0	26.17	33.37	38.96	34.96	37.07	35.06	28.37	30.83	27.06	25.83	28.30	27.41
γ 45.0	17.43	20.57	23.77	21.09	22.73	21.39	18.43	19.92	17.84	17.08	18.59	17.89
γ 50.0	12.74	14.57	16.05	14.52	15.65	14.84	13.18	14.18	12.92	12.27	13.28	13.04
γ 55.0	9.71	11.08	11.87	10.73	11.54	11.14	9.91	10.65	9.86	9.19	9.98	10.01
γ 60.0	7.66	8.70	9.15	8.24	8.89	8.65	7.78	8.36	7.76	7.17	7.86	7.93
γ 65.0	6.07	6.91	7.21	6.45	7.11	6.89	6.18	6.58	6.14	5.61	6.18	6.28
γ 70.0	5.54	5.60	5.70	5.51	5.66	5.61	5.58	5.55	5.58	5.63	5.47	5.58
γ 75.0	5.45	5.55	5.64	5.57	5.53	5.42	5.56	5.59	5.59	5.59	5.51	5.57
γ 80.0	5.50	5.60	5.53	5.57	5.53	5.47	5.53	5.49	5.59	5.58	5.53	5.51
γ 85.0	5.51	5.55	5.54	5.55	5.59	5.47	5.58	5.49	5.57	5.61	5.51	5.52
γ 90.0	5.46	5.65	5.57	5.54	5.56	5.49	5.55	5.51	5.51	5.59	5.51	5.59
γ 95.0	5.52	5.58	5.53	5.61	5.55	5.47	5.57	5.55	5.53	5.59	5.61	5.53
γ 100.0	5.53	5.66	5.65	5.60	5.58	5.49	5.50	5.57	5.65	5.67	5.62	5.53
γ 105.0	5.57	5.67	5.63	5.57	5.61	5.44	5.58	5.65	5.66	5.72	5.65	5.61
γ 110.0	5.59	5.71	5.62	5.63	5.59	5.55	5.62	5.59	5.70	5.66	5.66	5.71
γ 115.0	5.67	5.73	5.73	5.76	5.72	5.60	5.78	5.78	5.78	5.75	5.80	5.72
γ 120.0	5.86	5.91	5.82	5.92	5.87	5.78	5.99	6.01	6.08	5.99	5.97	5.93
γ 125.0	6.21	6.20	6.02	6.25	6.27	6.20	6.40	6.44	6.59	6.44	6.35	6.35
γ 130.0	6.81	6.80	6.56	7.03	6.88	6.92	7.16	7.21	7.48	7.06	7.09	7.06
γ 135.0	7.77	7.63	7.35	8.15	8.05	7.99	8.32	8.43	8.88	8.21	8.13	8.02
γ 140.0	9.06	8.75	8.52	9.70	9.59	9.56	9.93	10.13	10.61	9.56	9.50	9.41
γ 145.0	10.51	10.24	9.96	11.61	11.50	11.41	11.72	11.99	12.57	11.14	11.13	10.91
γ 150.0	12.10	11.89	11.51	13.80	13.54	13.53	13.74	14.07	14.59	12.82	12.78	12.55
γ 155.0	13.69	13.49	13.10	15.82	15.55	15.45	15.59	15.77	16.35	14.43	14.35	14.00
γ 160.0	15.07	14.79	14.59	17.36	17.18	17.08	17.11	17.22	17.58	15.68	15.58	15.23
γ 165.0	16.09	15.82	15.65	18.36	17.97	18.03	18.02	17.91	18.08	16.45	16.46	16.13
γ 170.0	16.69	16.51	16.20	18.64	18.18	18.27	18.31	18.02	17.89	16.91	16.87	16.58
γ 175.0	17.32	16.98	16.70	18.54	17.96	18.09	18.16	17.81	17.64	17.42	17.30	17.01
γ 180.0	17.86	17.86	17.86	17.86	17.86	17.86	17.86	17.86	17.86	17.86	17.86	17.86