

IES Indoor Report

Photometric Filename:KO12W4K 3000K.IES

Description Information(From Photometric File)

Photometric File: KO12W4K 3000K.IES

IES Format: IESNA:LM-63-1995

[TEST]

[DATE] 2019/11/23

[MANUFAC] Eurotech Lighting

[LUMCAT] 1

[LUMINAIRE]

[LAMPCAT] LED

[LAMP]

[BALLASTCAT]

[BALLAST]

[OTHER] 1 GON-1800

[More] Temperature:15 Humidity:40

[More] Frequency:50.0 Voltage:229.5 Current:0.104 Power:12.2 PF:0.512

Character

Lamp Power (w): 12.2
Total Rated Lamp Lumens (lm): 1503.31
Luminair Lumens (lm): 796.07
Total Luminair Efficiency: 52.95%
Luminaire Efficacy Rating (LER): 65.25
Maximum Intensity (cd): 242.35
Max Cd Angle (deg): C=0.0 γ =0.0
Downward Lumens (lm): 735.58
Downward Total Efficiency: 92.40%
Spacing Criteria: C0_180=0.64 C90_270=0.60
CIE Type: Semi-Direct
Beam Angle (50%Imax): Left=-61.7 Right=63.9
Field Angle (10%Imax): 217.8

Candela Tabulation

	<u>C0_0</u>	<u>C30_0</u>	<u>C60_0</u>	<u>C90_0</u>	<u>C120_0</u>	<u>C150_0</u>	<u>C180_0</u>	<u>C210_0</u>	<u>C240_0</u>	<u>C270_0</u>	<u>C300_0</u>	<u>C330_0</u>	<u>C360_0</u>
<u>γ0_0</u>	242.35	242.35	242.35	242.35	242.35	242.35	242.35	242.35	242.35	242.35	242.35	242.35	242.35

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γ 5.0	241.37	241.21	241.56	241.59	241.40	241.47	240.47	240.68	240.29	240.84	240.21	240.59	241.37
γ 10.0	238.09	237.52	238.06	237.52	238.39	238.04	236.15	236.53	235.55	236.17	235.34	236.08	238.09
γ 15.0	232.35	231.21	231.78	230.70	232.26	232.00	229.42	229.93	228.03	228.52	227.75	229.11	232.35
γ 20.0	224.50	222.70	222.89	221.35	223.55	223.71	221.17	221.06	218.08	218.56	217.67	220.16	224.50
γ 25.0	215.44	212.43	211.82	209.61	212.54	213.73	211.92	210.83	206.20	206.40	205.63	209.65	215.44
γ 30.0	206.19	201.49	198.86	196.01	199.66	202.77	203.24	199.95	192.52	192.39	191.73	198.62	206.19
γ 35.0	197.29	190.65	184.52	180.95	185.28	191.93	193.71	189.16	177.72	176.97	176.96	187.82	197.29
γ 40.0	186.94	179.43	169.22	164.65	170.13	180.71	182.82	177.50	162.26	160.46	161.45	176.32	186.94
γ 45.0	175.37	167.01	153.55	147.44	154.49	168.21	170.54	164.79	146.68	143.34	145.86	163.53	175.37
γ 50.0	162.59	153.43	138.12	129.62	138.83	154.57	157.02	150.86	131.28	125.06	130.51	149.66	162.59
γ 55.0	148.52	138.93	122.87	111.43	123.47	140.00	142.30	136.04	115.70	106.65	114.96	134.95	148.52
γ 60.0	133.58	123.74	107.14	92.77	107.67	124.61	126.76	120.45	99.59	88.08	99.01	119.43	133.58
γ 65.0	117.77	107.84	91.05	74.24	91.50	108.54	110.46	104.25	83.30	69.50	82.74	103.28	117.77
γ 70.0	101.32	91.44	74.74	55.81	75.03	92.14	93.73	87.59	67.00	51.16	66.45	86.81	101.32
γ 75.0	84.59	74.95	58.58	38.04	58.81	75.53	76.88	71.04	50.93	33.68	50.42	70.38	84.59
γ 80.0	68.28	59.07	42.88	21.62	43.02	59.47	60.97	55.31	35.97	17.85	35.55	54.78	68.28
γ 85.0	53.36	44.90	29.23	8.50	29.26	45.38	47.76	42.09	23.94	5.85	23.51	41.60	53.36
γ 90.0	42.57	35.26	19.73	1.24	19.74	35.74	40.29	34.19	17.11	0.32	16.59	33.67	42.57
γ 95.0	37.71	31.06	15.52	0.10	15.35	31.36	36.22	30.44	14.05	0.03	13.66	29.90	37.71
γ 100.0	33.74	27.53	12.69	0.15	12.51	27.76	32.28	26.78	11.29	0.12	10.95	26.37	33.74
γ 105.0	29.92	24.05	9.88	0.25	9.78	24.17	28.33	23.24	8.58	0.23	8.43	23.01	29.92
γ 110.0	26.07	20.56	7.28	0.36	7.10	20.61	24.56	19.83	5.98	0.47	5.80	19.55	26.07
γ 115.0	22.20	17.12	4.59	0.52	4.37	17.20	20.70	16.43	3.44	0.64	3.32	16.16	22.20
γ 120.0	18.57	13.78	2.37	0.61	2.10	13.76	16.93	13.05	1.50	0.76	1.44	12.81	18.57
γ 125.0	14.88	10.26	0.89	0.85	0.70	10.10	13.13	9.28	0.72	0.85	0.90	9.13	14.88
γ 130.0	10.90	6.68	0.93	0.85	0.81	6.49	9.04	5.75	0.86	0.97	0.86	5.67	10.90
γ 135.0	7.00	3.54	1.05	1.04	0.91	3.45	5.30	2.79	0.95	1.11	0.98	2.74	7.00
γ 140.0	3.54	1.34	1.00	1.23	1.09	1.22	2.17	1.20	1.08	1.19	1.09	1.11	3.54
γ 145.0	1.19	1.41	1.26	1.38	1.34	1.34	1.31	1.28	1.21	1.29	1.22	1.25	1.19
γ 150.0	1.42	1.53	1.45	1.49	1.37	1.42	1.58	1.36	1.32	1.41	1.35	1.36	1.42
γ 155.0	1.55	1.49	1.54	1.55	1.43	2.33	1.60	1.43	1.43	1.49	1.47	1.45	1.55
γ 160.0	1.62	1.55	1.58	1.53	1.57	1.52	1.69	1.51	1.49	1.57	1.56	1.54	1.62
γ 165.0	1.71	1.56	1.74	1.60	1.67	1.54	1.78	1.59	1.83	1.65	1.71	1.60	1.71
γ 170.0	1.80	1.68	1.78	1.66	1.81	1.66	1.84	1.67	1.87	1.68	1.85	1.48	1.80
γ 175.0	1.85	1.76	1.74	1.75	1.76	1.79	1.89	1.71	1.89	1.85	1.89	1.89	1.85
γ 180.0	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81

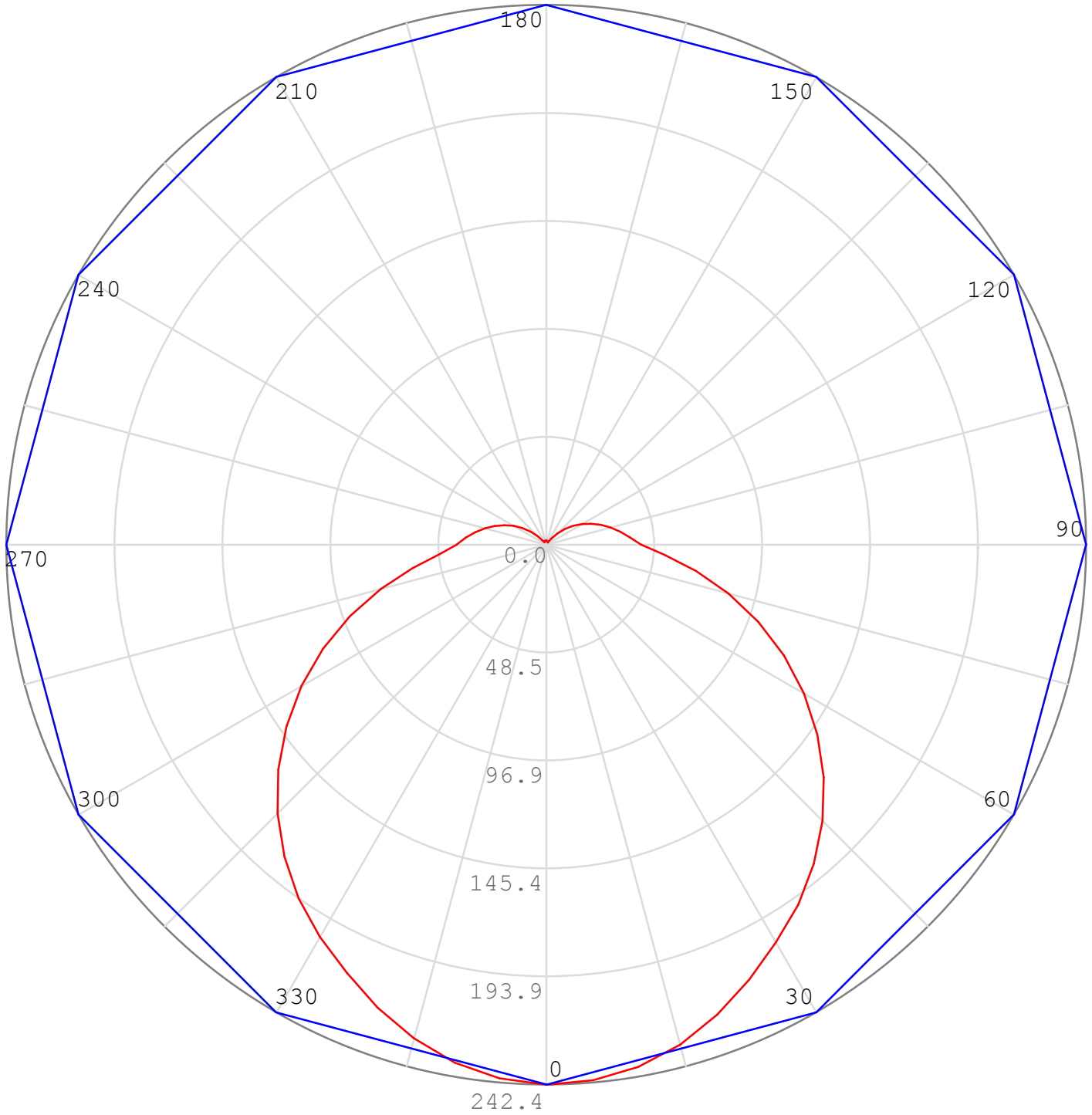
2D Light Intensity Distribution Curve

Plane [50%Ang.] [10%Ang.] Polar Graph

IES Indoor Report

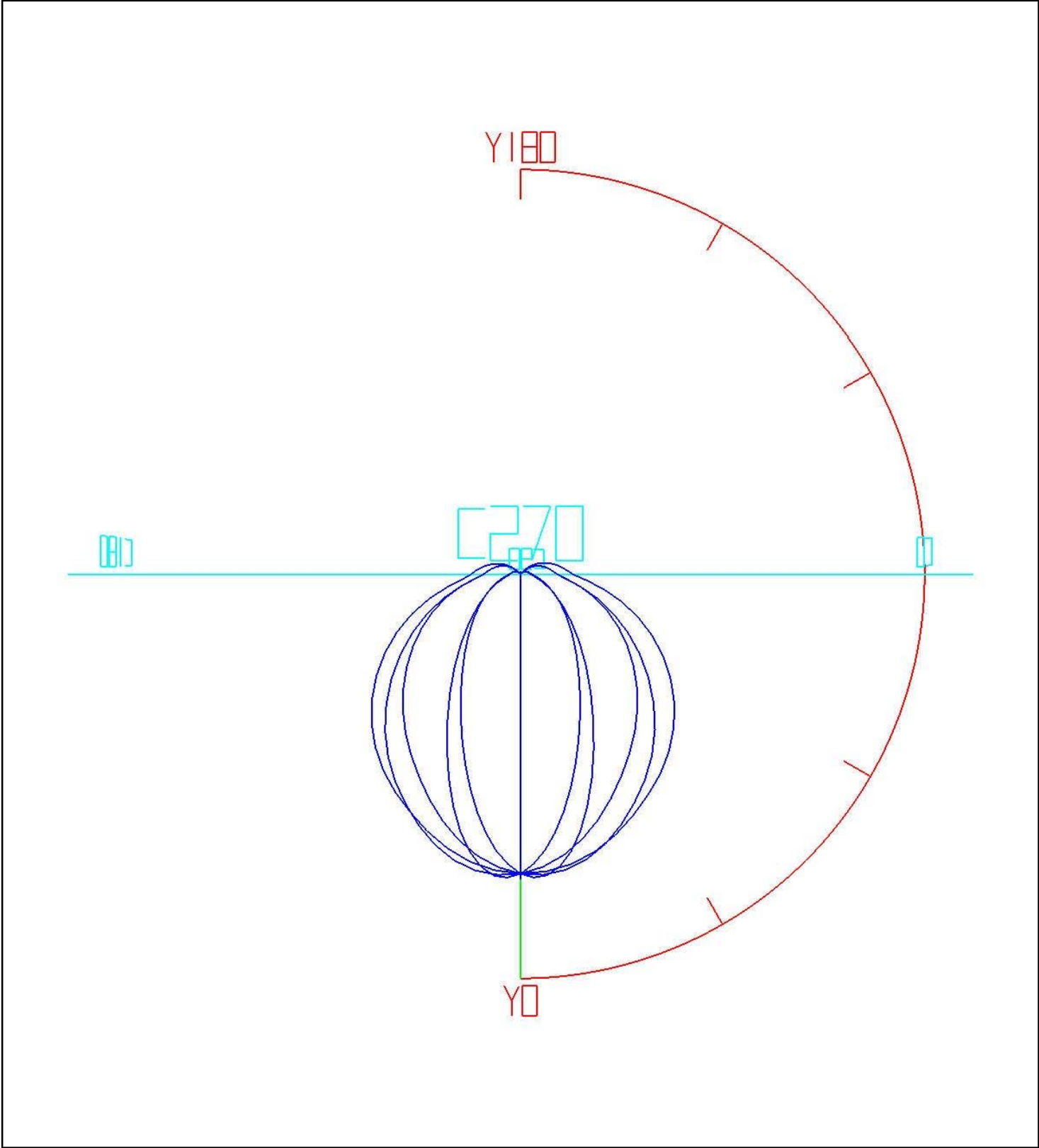
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C0.0: 125.6 222.8



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3D Light Intensity Distribution Curve



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

IES Indoor Report

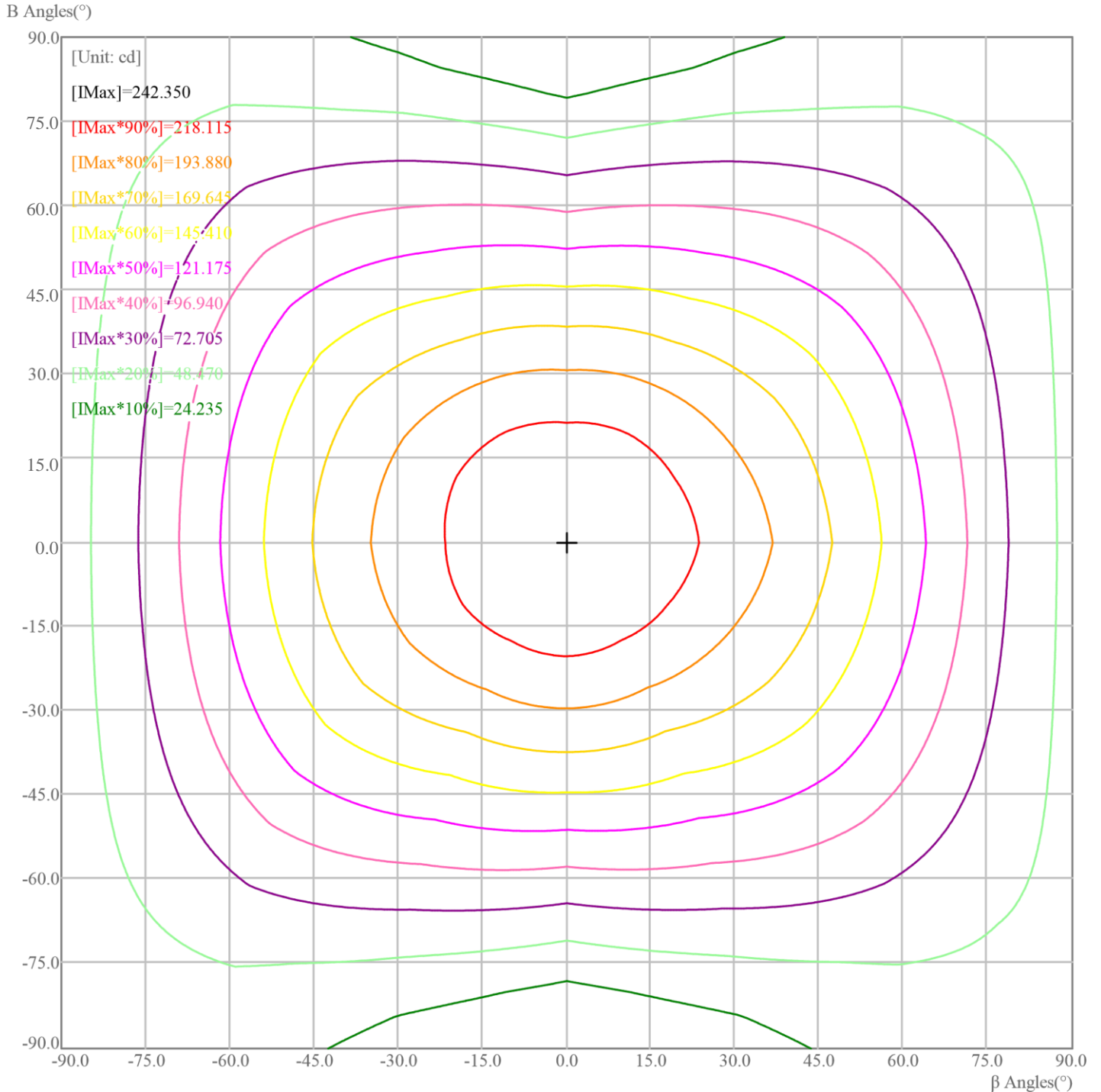
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Zonal Liumens Tabulation

Zone(γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	
0.0-5.0	5.78	5.78	0.73	0.73
5.0-10.0	17.10	22.87	2.15	2.87
10.0-15.0	27.71	50.59	3.48	6.35
15.0-20.0	37.21	87.80	4.67	11.03
20.0-25.0	45.29	133.09	5.69	16.72
25.0-30.0	51.78	184.87	6.50	23.22
30.0-35.0	56.65	241.52	7.12	30.34
35.0-40.0	59.85	301.37	7.52	37.86
40.0-45.0	61.30	362.67	7.70	45.56
45.0-50.0	61.00	423.66	7.66	53.22
50.0-55.0	59.02	482.68	7.41	60.63
55.0-60.0	55.45	538.13	6.97	67.60
60.0-65.0	50.39	588.52	6.33	73.93
65.0-70.0	44.05	632.57	5.53	79.46
70.0-75.0	36.75	669.32	4.62	84.08
75.0-80.0	28.96	698.28	3.64	87.72
80.0-85.0	21.51	719.79	2.70	90.42
85.0-90.0	15.79	735.58	1.98	92.40
90.0-95.0	12.59	748.17	1.58	93.98
95.0-100.0	10.81	758.98	1.36	95.34
100.0-105.0	9.19	768.17	1.15	96.50
105.0-110.0	7.58	775.75	0.95	97.45
110.0-115.0	6.01	781.76	0.76	98.20
115.0-120.0	4.55	786.31	0.57	98.77
120.0-125.0	3.26	789.57	0.41	99.18
125.0-130.0	2.20	791.77	0.28	99.46
130.0-135.0	1.36	793.13	0.17	99.63
135.0-140.0	0.74	793.87	0.09	99.72
140.0-145.0	0.46	794.33	0.06	99.78
145.0-150.0	0.40	794.73	0.05	99.83
150.0-155.0	0.38	795.10	0.05	99.88
155.0-160.0	0.33	795.43	0.04	99.92
160.0-165.0	0.27	795.70	0.03	99.95
165.0-170.0	0.20	795.90	0.03	99.98
170.0-175.0	0.13	796.03	0.02	99.99
175.0-180.0	0.04	796.07	0.01	100.00
			Sums%Lamp	

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Curves: 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10%

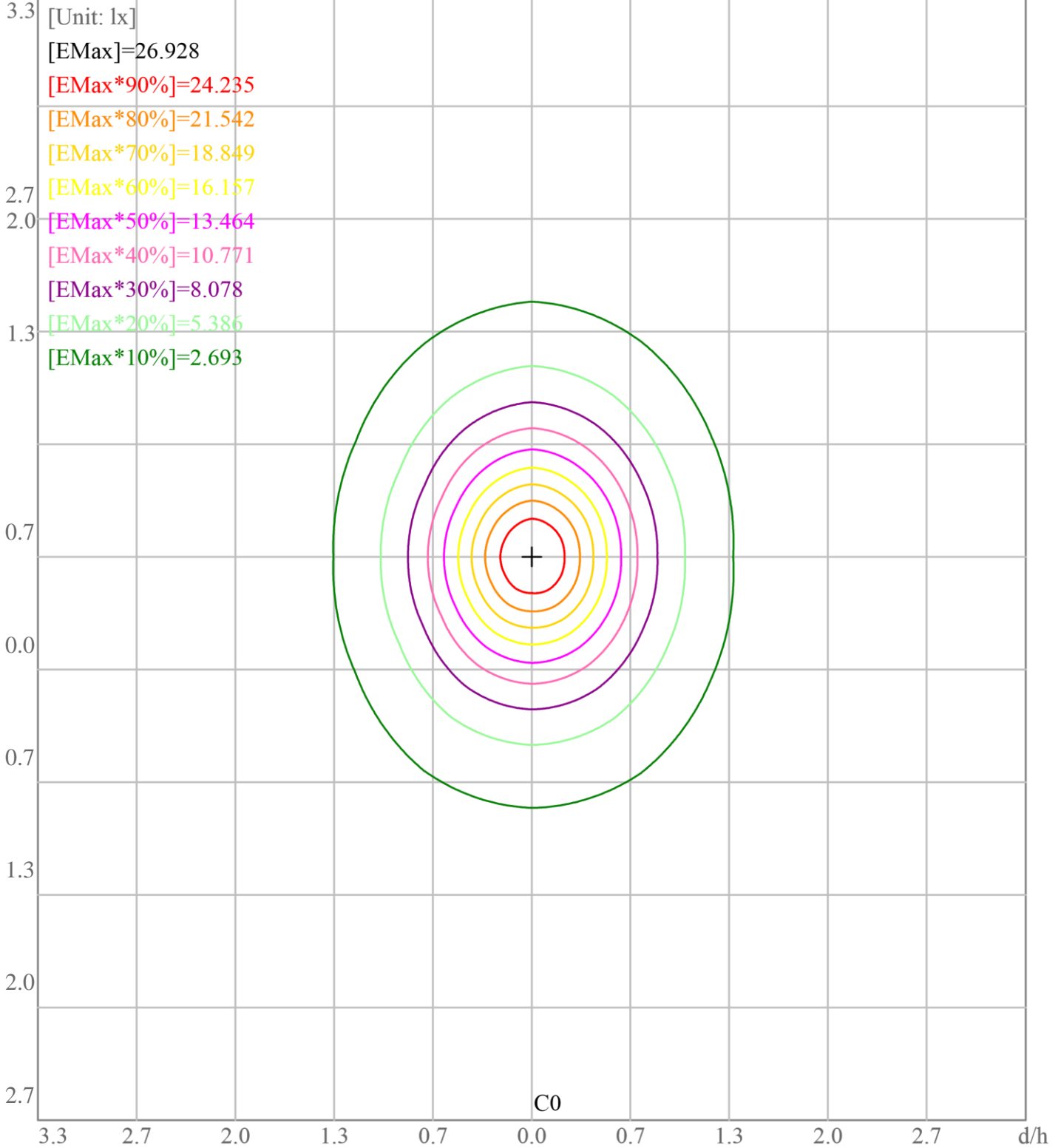
Maximum Light Intensity(cd): 242.35

Maximum Cd. Angles: H0.0 V0.0

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Plane ISO-Illuminance Curve

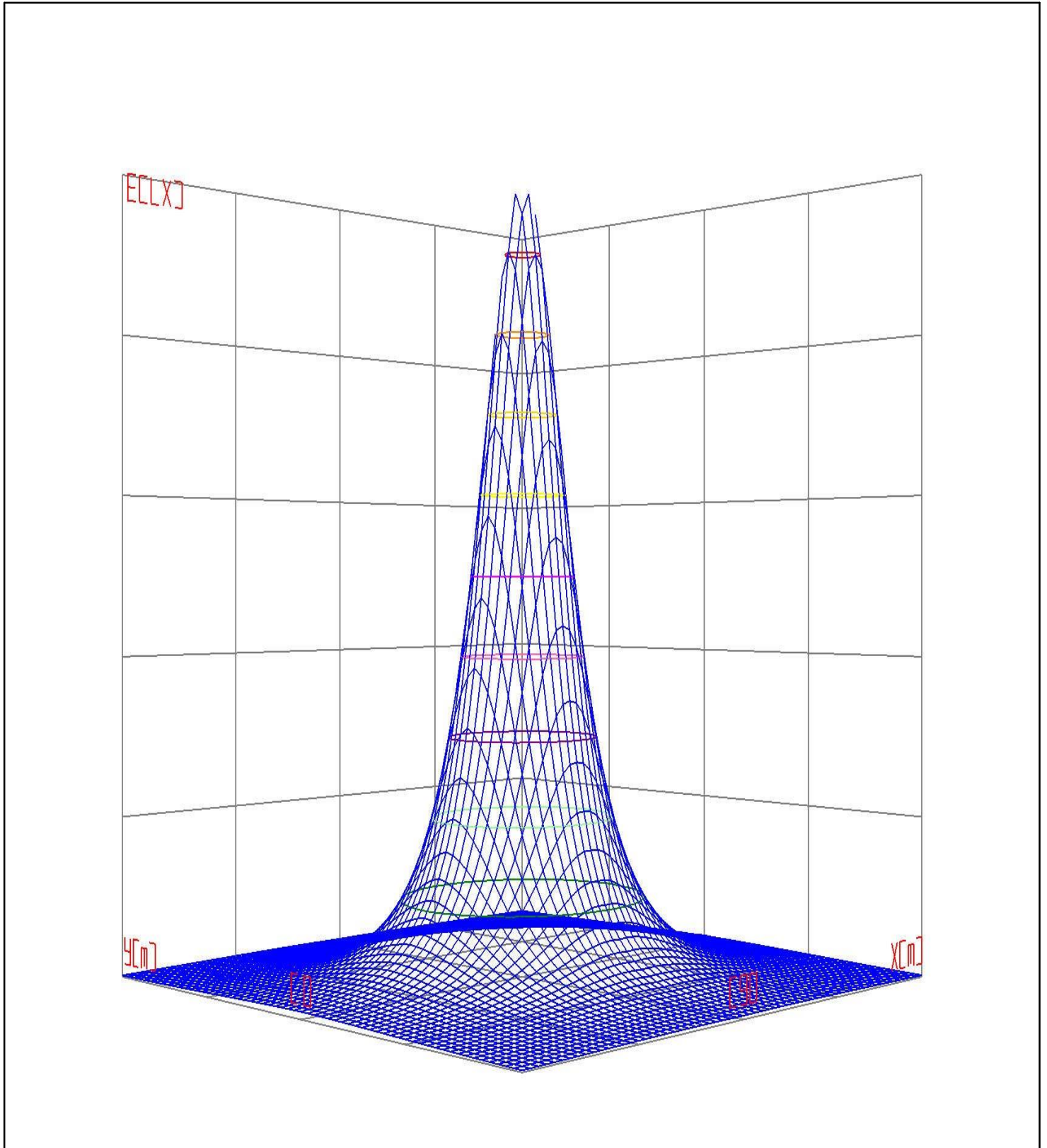


Curves: 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —
 Maximum Illuminance(lx): 242.35 Max. E Postion(d/h): 0.0 V0.0
 Mount Height(m): 3.0

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3D Plane ISO Illuminance Curve

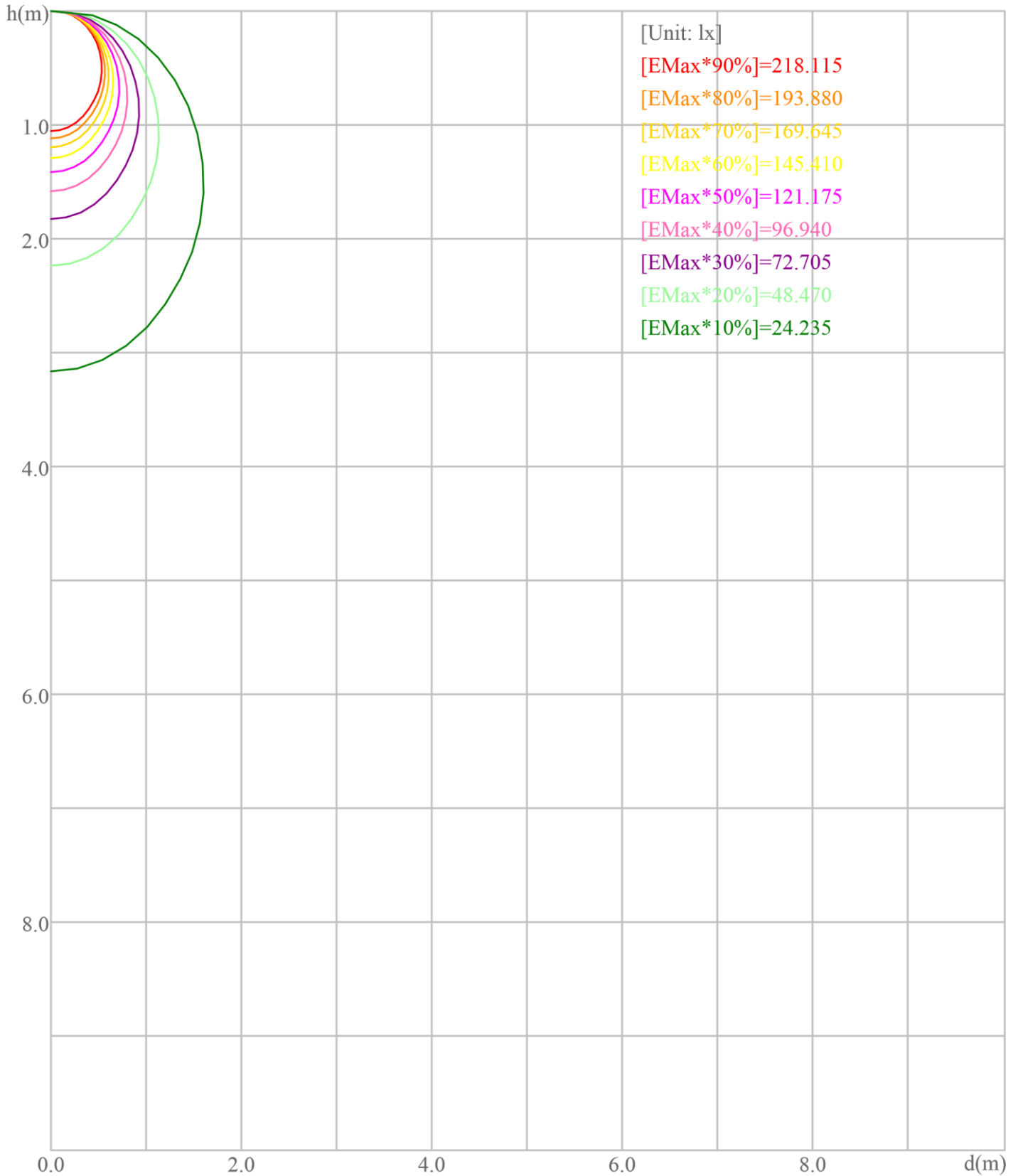


Curves: 3D Model — 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —
View Angles(deg): 0 Height(m): 3.0 Distance(m): 10.0

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Space ISO Illuminance Curve



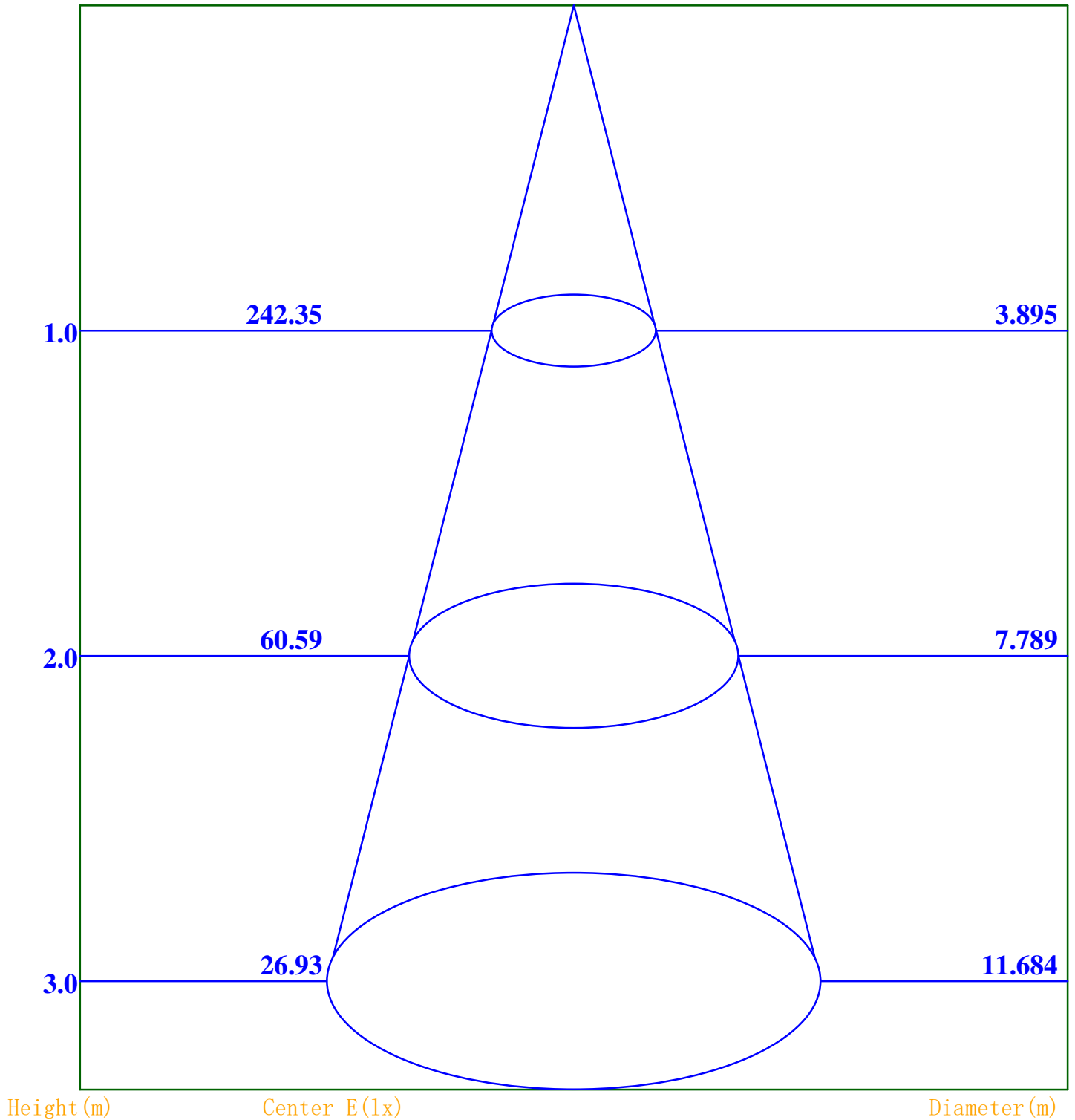
Curves: 90% — 80% — 70% — 60% — 50% — 40% — 30% — 20% — 10% —

Maximum Light Intensity(cd): 242.35

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Illuminance-Distance Curve



Indoor Luminance Limiting Curve

Glare Grade Table

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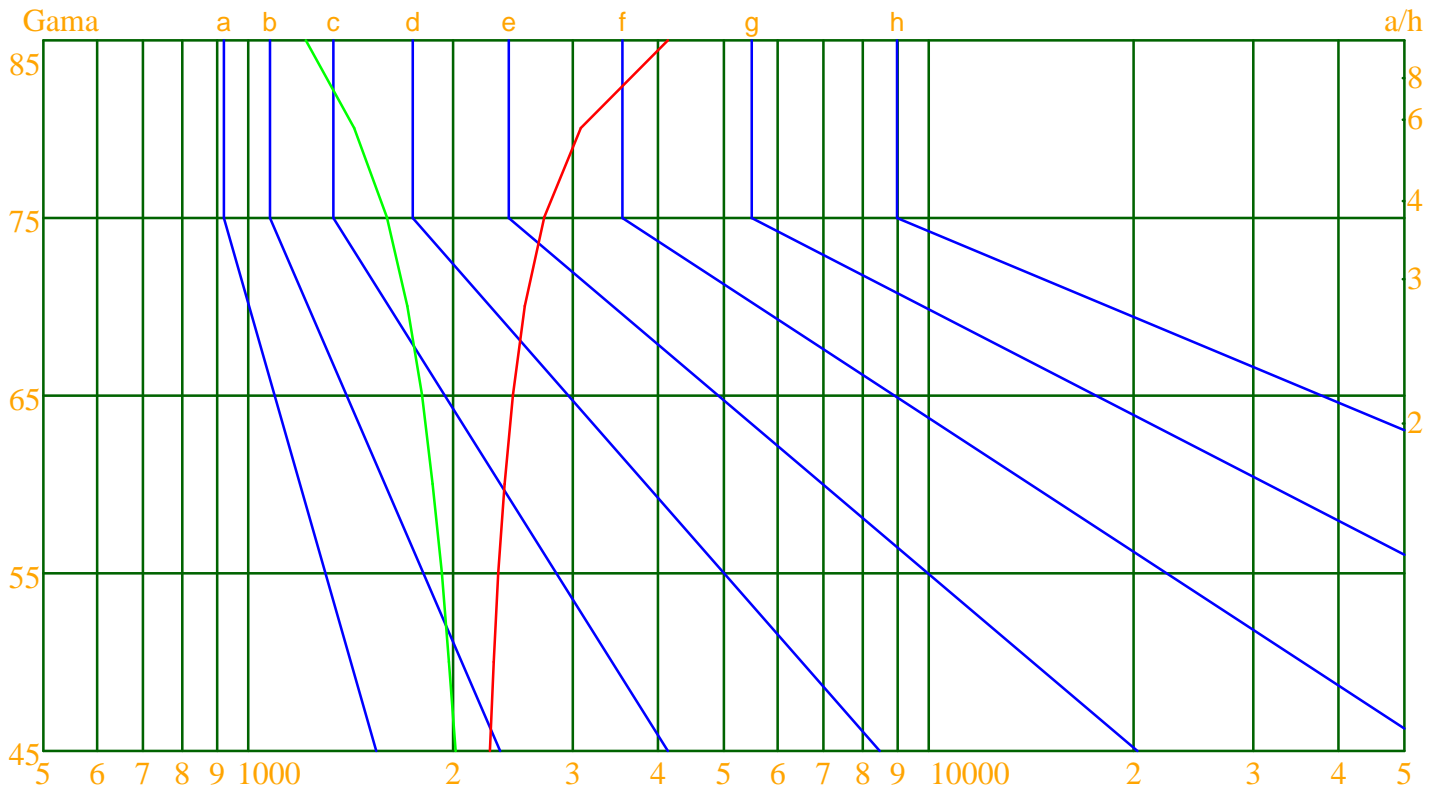
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GI	Quality	Using Illuminance							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Table

Gama(deg)	45	50	55	60	65	70	75	80	85
C0	4820	4916	5033	5193	5416	5758	6353	7643	11899
C90	4053	3919	3776	3606	3414	3171	2856	2420	1895

Luminance Limiting Curve



Luminous Size: Length(m)=0.245 Width(m)=0.120 Height(m)=0.090 Area(m²)=0.051450

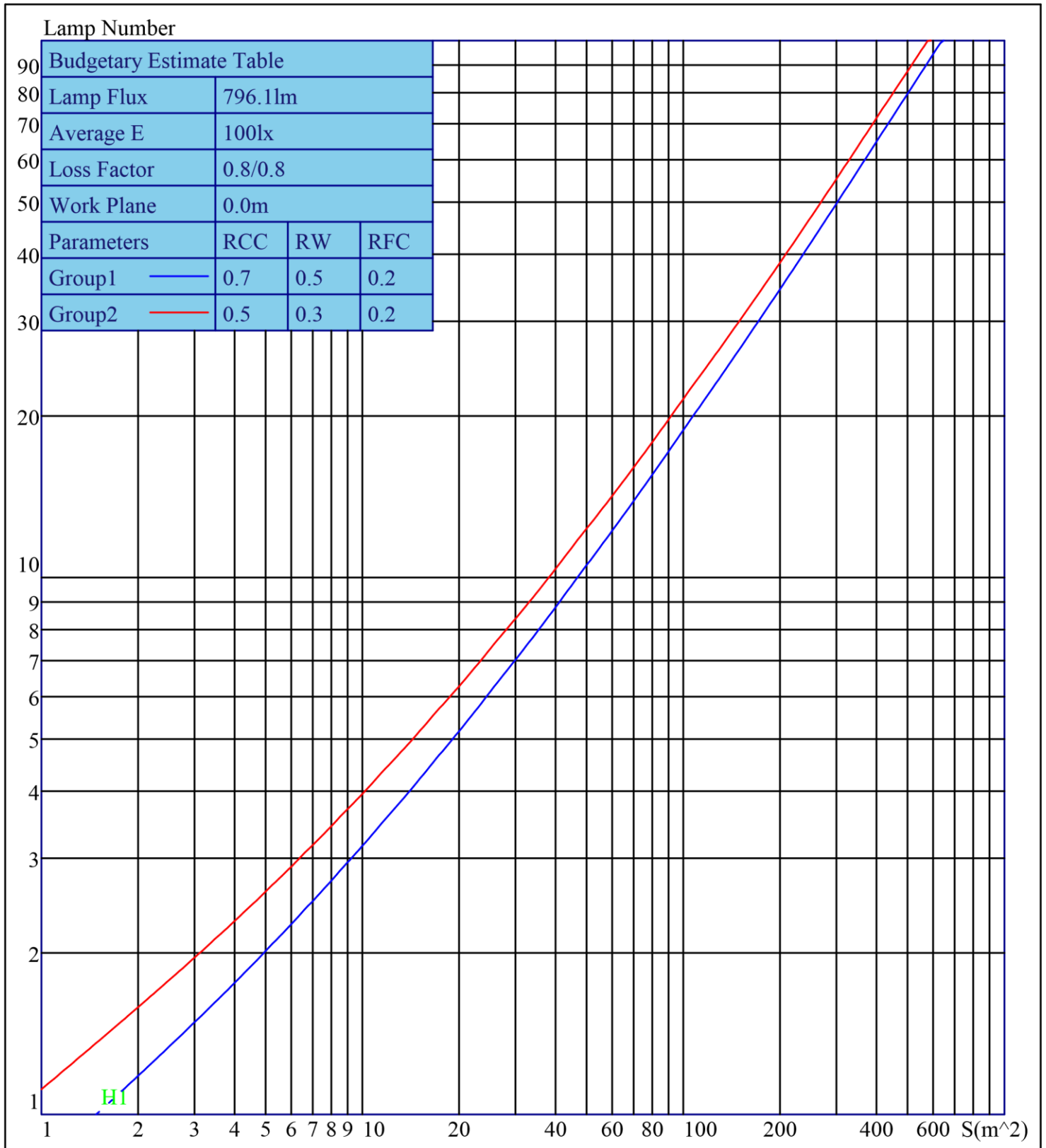
Luminous Type: Without Luminous Side

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

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Indoor Budgetary Estimate Table



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

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Indoor Coefficient of Utilization Table

Coefficients of Utilization - Zonal Cavity Method																																																						
Coefficient Effective Floor Cavity Reflectance RFC=0.20																																																						
RhoCC (%)	80			70			50			30			10			0																																						
RhoW (%)	70			50			30			10			70			50			30			10			0																													
RCR	Coefficient of Utilization(%)																																																					
0	62			62			62			62			60			60			60			60			57			57			57			53			53			53			50			50			50			49		
1	56			53			50			48			54			51			49			47			48			47			45			46			44			43			43			42			41			39		
2	51			46			42			39			49			44			41			38			42			39			36			40			37			35			37			35			34			32		
3	46			40			35			32			44			39			35			31			37			33			30			35			32			29			33			30			28			27		
4	42			35			30			27			40			34			30			26			32			29			26			31			27			25			29			26			24			23		
5	39			31			27			23			37			31			26			23			29			25			22			28			24			21			26			23			21			20		
6	36			28			23			20			34			28			23			20			26			22			19			25			21			19			24			21			18			17		
7	33			26			21			18			32			25			21			17			24			20			17			23			19			17			22			19			16			15		
8	31			23			19			16			30			23			18			15			22			18			15			21			17			15			20			17			14			13		

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9	29 21 17 14	28 21 17 14	20 16 14	19 16 13	18 15 13	12
10	27 20 16 13	26 19 15 13	19 15 12	18 14 12	17 14 12	11