

IES Indoor Report

Photometric Filename: PL03-48-XX-01 5000K RA90 120D.IES

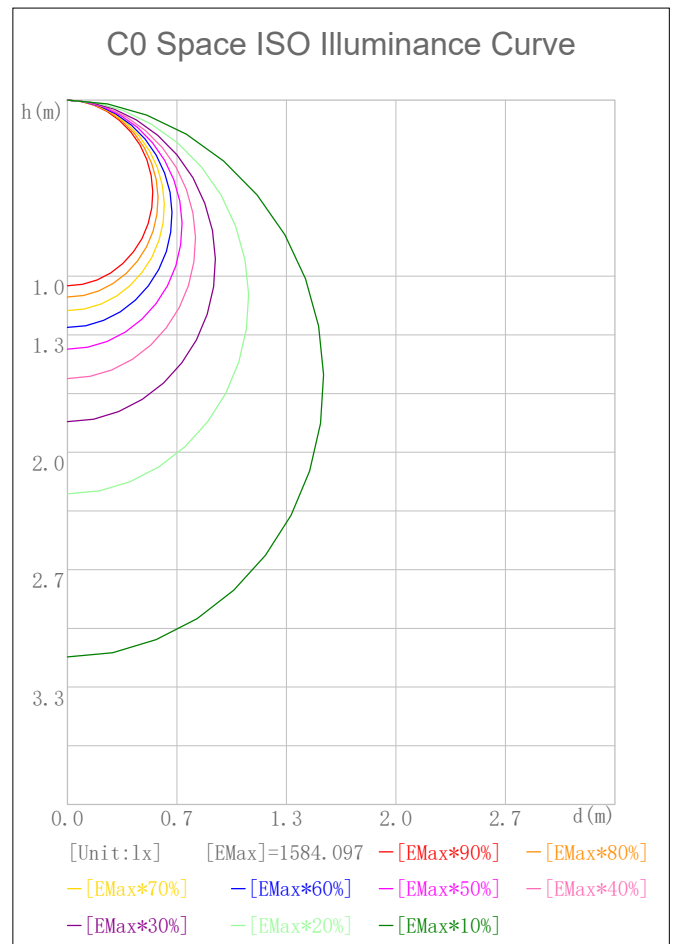
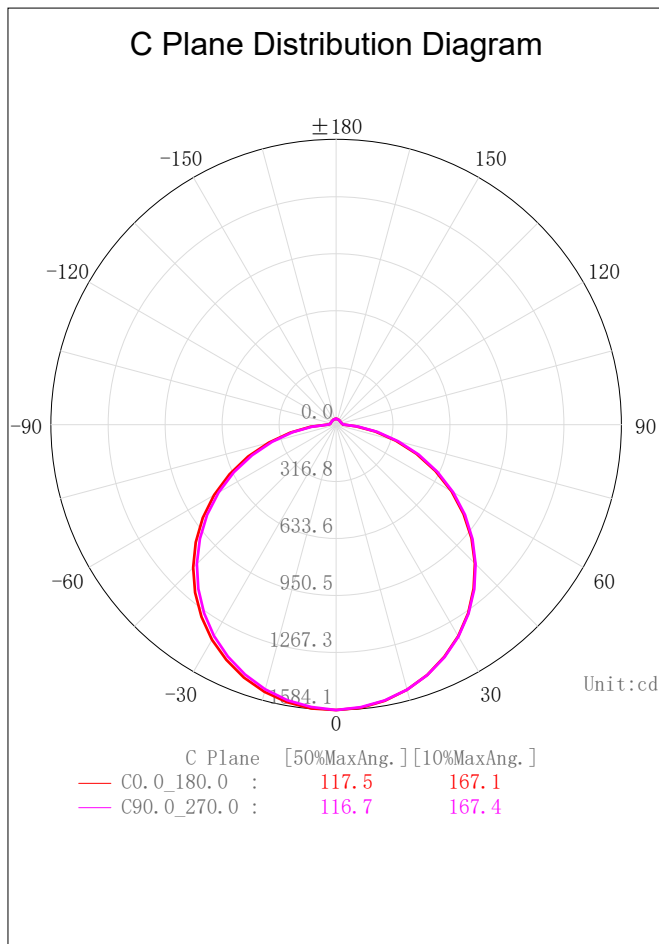
Indoor Luminaire Photometric Data

Description Information

Luminary Name: PL03-48-XX-01 5000K RA90 120D		Lum. Catalog:	Test ID: 01
Lamp Name:		Lamp Catalog: LED	Test Date: 2023/01/11
Manufacture: Shenzhen Norming Lighting		Shld. Ang(°):	Test Machine: GON-2000
Test Lab: Quality Department		Frequency (Hz):	Lamp CCT (K): Ra:
Lum. Size (W*L*H): 0.074m*0.074m*0.000m		Lum. Area (m2): 0.005	Lum. W (kg): 0.000
Test System: C, γ	Test Step: C=90.0 γ=5.0	Temp. (°C): 25	Humidity (%):

Character Parameter

Lamp Speciality Parameter		Luminaire Speciality Parameter	
Rated Flux(lm): 5025.070	Luminary Flux(lm): 5025.070	Field Angle(10%Imax): 167.1(°)	
Rated Power(W):	Luminary Efficiency: 100.00%	Down Lumens&Percent: 4828.347lm 96.09%	
Rated Voltage(V):	Luminary EER(lm/W): 125.126	Up Lumens&Percent: 196.723lm 3.91%	
Tested Power(W): 40.160	Max. Candela(cd): 1584.097	S/MH: C0_a180=1.283 C90_270=1.275	
Lamps' Inside: 1	Max Cand@Ang. (°): C=0.0 γ=0.0	CIE Type: Semi-Direct	
Tested Electrics (V, A, pf): 28.7, 1.399	Beam Angle(50%Imax): 117.5(°)	ErP φ use(120°): 3683.668lm	
Lamp Size (W*L*H): 0.074m*0.074m*0.000m	Left=-59.6°, Right=57.9°	IRF (%): 105.850	



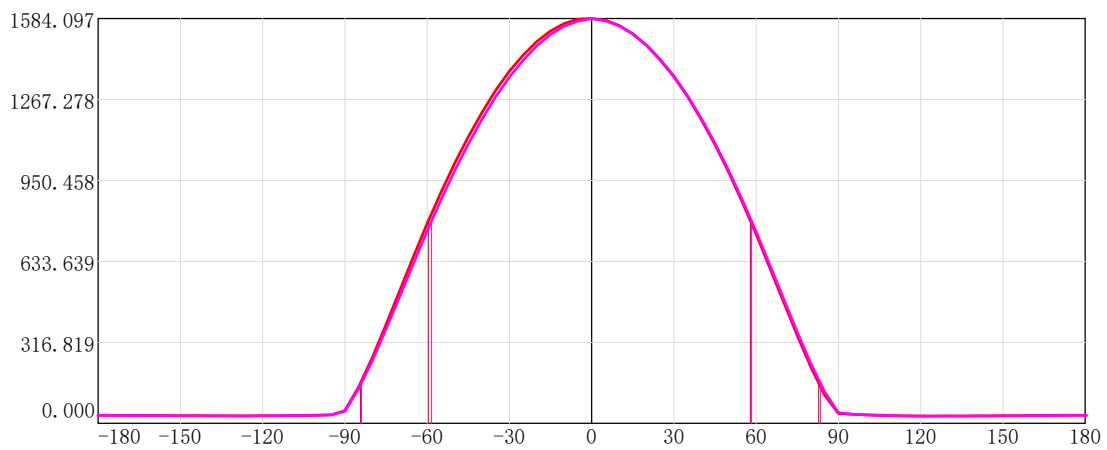
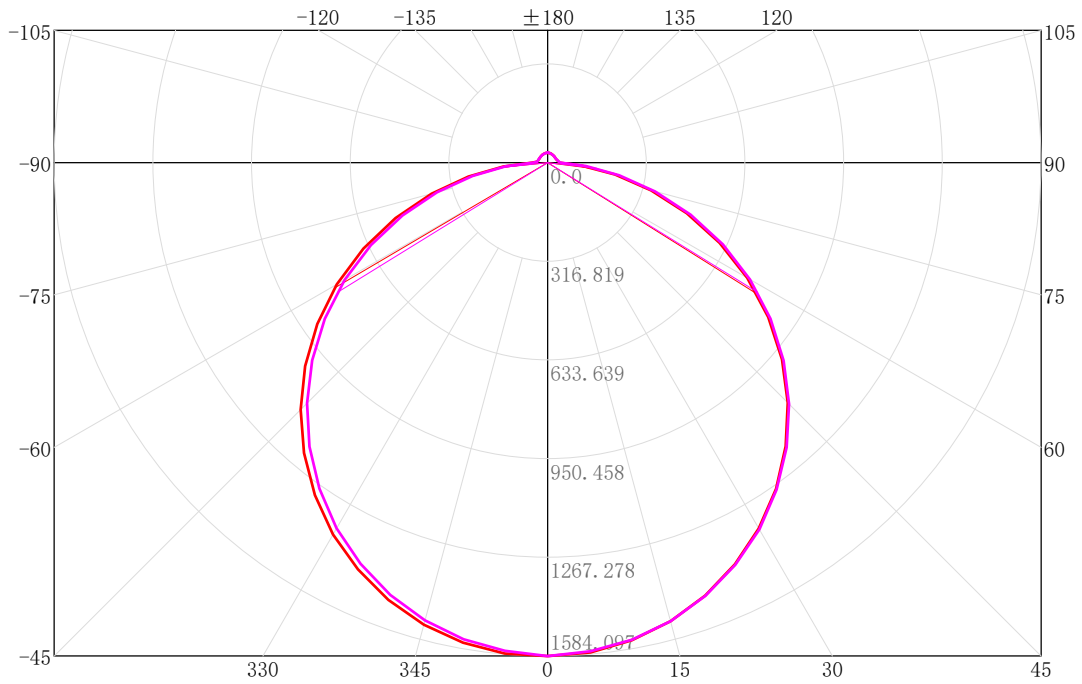
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2D Plane Light Intensity Distribution Curve

Lum. Name: PL03-48-XX-01 5000K RA90 120D	Lum. Catalog:	Test ID: 01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine: GON-2000	Test Date: 2023/01/11

C Plane Distribution Diagram



C Plane [50%MaxAng.] [10%MaxAng.]
 — C0.0_180.0 : 117.5 167.1
 — C90.0_270.0 : 116.7 167.4

Unit:cd

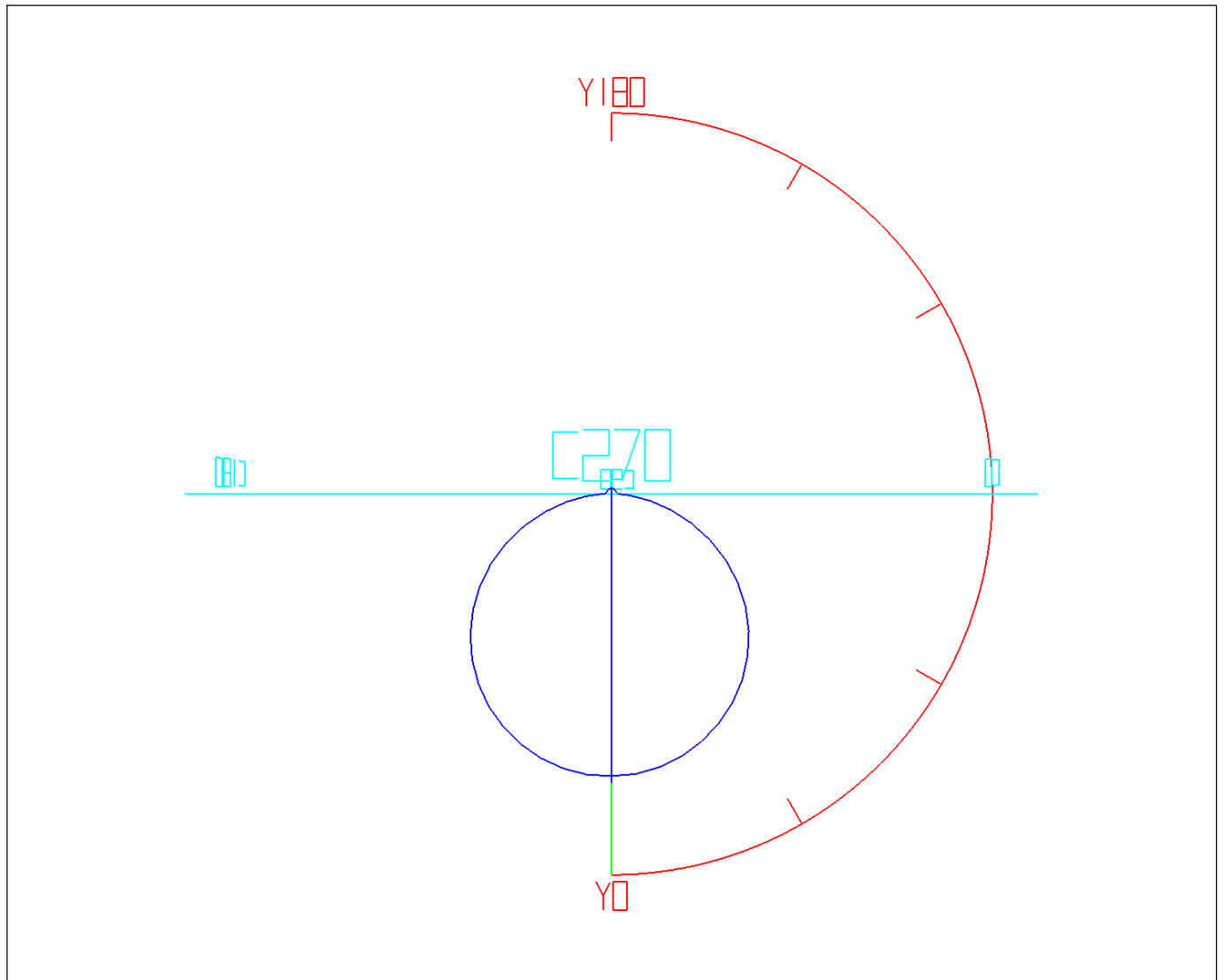
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3D Light Intensity Distribution Modal

Lum. Name: PL03-48-XX-01 5000K RA90 120D	Lum. Catalog:	Test ID: 01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine: GON-2000	Test Date: 2023/01/11

3D Light Intensity Distribution Modal



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

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Zonal Flux Tabulation

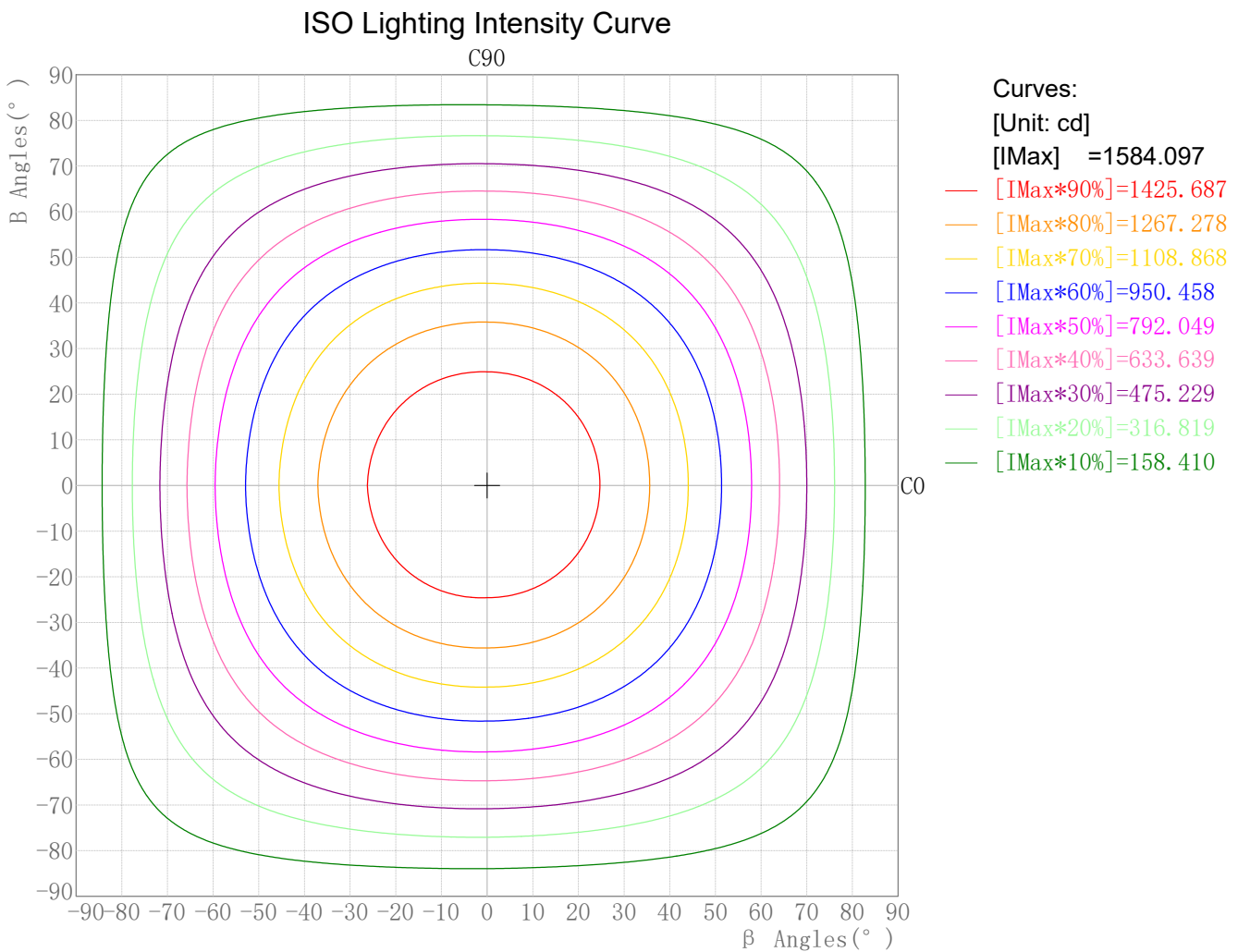
Zone (γ)	Zone Flux (lm)	Sums Flux (lm)	Zone%Lamp	Sums%Lamp
0.0-5.0	37.79	37.79	0.75	0.75
5.0-10.0	112.14	149.92	2.23	2.98
10.0-15.0	182.93	332.85	3.64	6.62
15.0-20.0	247.95	580.80	4.93	11.56
20.0-25.0	305.16	885.96	6.07	17.63
25.0-30.0	352.99	1238.95	7.02	24.66
30.0-35.0	389.79	1628.74	7.76	32.41
35.0-40.0	414.09	2042.83	8.24	40.65
40.0-45.0	425.28	2468.11	8.46	49.12
45.0-50.0	422.95	2891.06	8.42	57.53
50.0-55.0	407.01	3298.07	8.10	65.63
55.0-60.0	377.80	3675.86	7.52	73.15
60.0-65.0	336.18	4012.04	6.69	79.84
65.0-70.0	284.00	4296.04	5.65	85.49
70.0-75.0	224.30	4520.35	4.46	89.96
75.0-80.0	161.22	4681.57	3.21	93.16
80.0-85.0	99.67	4781.24	1.98	95.15
85.0-90.0	47.11	4828.35	0.94	96.09
90.0-95.0	21.64	4849.98	0.43	96.52
95.0-100.0	18.36	4868.34	0.37	96.88
100.0-105.0	17.23	4885.57	0.34	97.22
105.0-110.0	16.19	4901.76	0.32	97.55
110.0-115.0	15.26	4917.02	0.30	97.85
115.0-120.0	14.40	4931.43	0.29	98.14
120.0-125.0	13.52	4944.95	0.27	98.41
125.0-130.0	12.68	4957.63	0.25	98.66
130.0-135.0	11.83	4969.46	0.24	98.89
135.0-140.0	10.90	4980.36	0.22	99.11
140.0-145.0	9.90	4990.26	0.20	99.31
145.0-150.0	8.83	4999.09	0.18	99.48
150.0-155.0	7.66	5006.75	0.15	99.64
155.0-160.0	6.44	5013.19	0.13	99.76
160.0-165.0	5.12	5018.31	0.10	99.87
165.0-170.0	3.73	5022.04	0.07	99.94
170.0-175.0	2.27	5024.31	0.05	99.98
175.0-180.0	0.76	5025.07	0.02	100.00

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Rectangle ISO Lighting Intensity Diagram

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Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine: GON-2000	Test Date: 2023/01/11



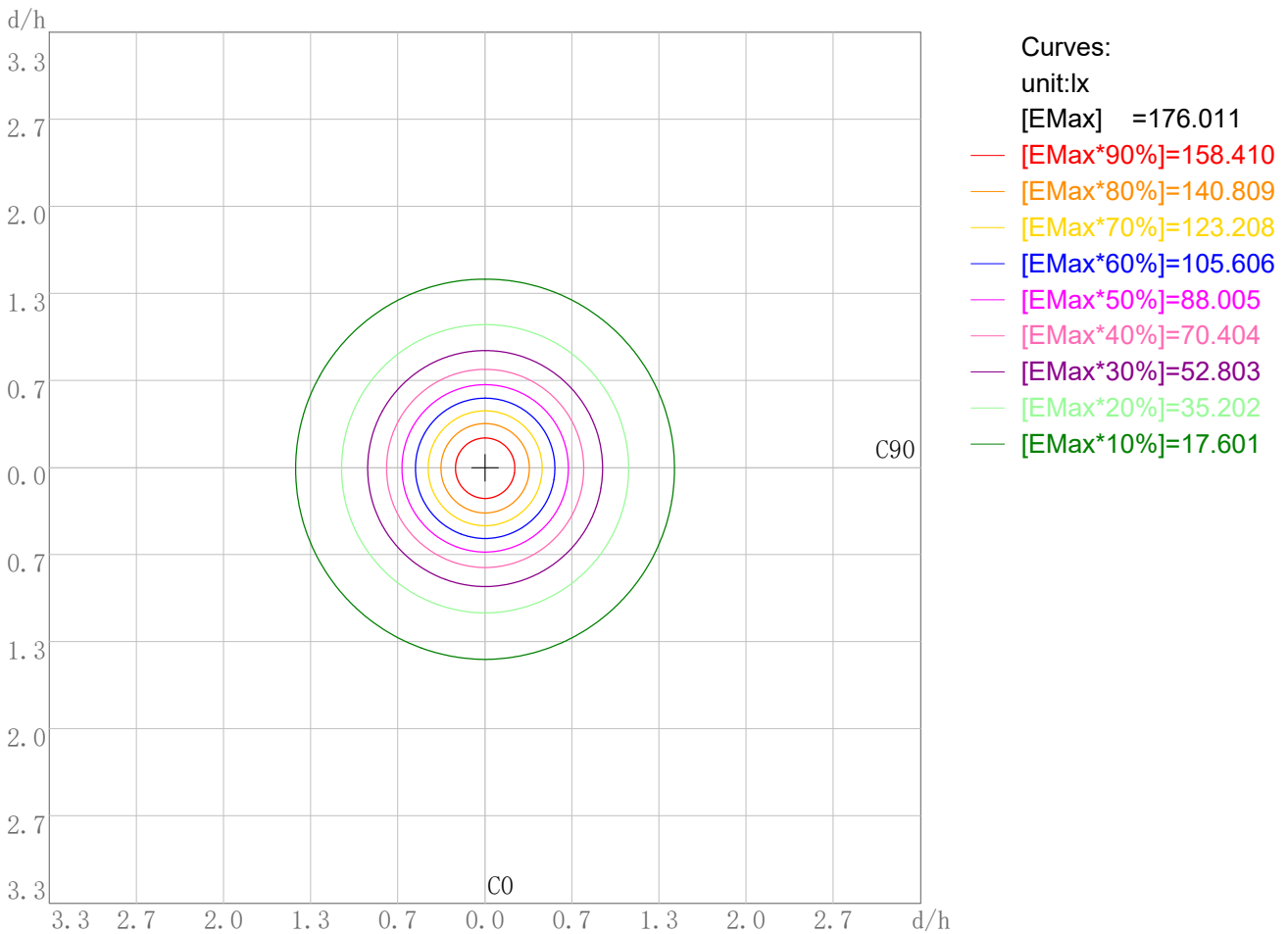
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Plane ISO-Illuminance Diagram

Lum. Name: PL03-48-XX-01 5000K RA90 120D	Lum. Catalog:	Test ID: 01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine: GON-2000	Test Date: 2023/01/11

Plane ISO-Illuminance Curve



Working Plane Luminaire Mounting Height(m): 3.00

Working Plane Maximum Illuminance(lx): 176.01

Working Plane Maximum Illuminance Position(d/h): H0.0 V0.0

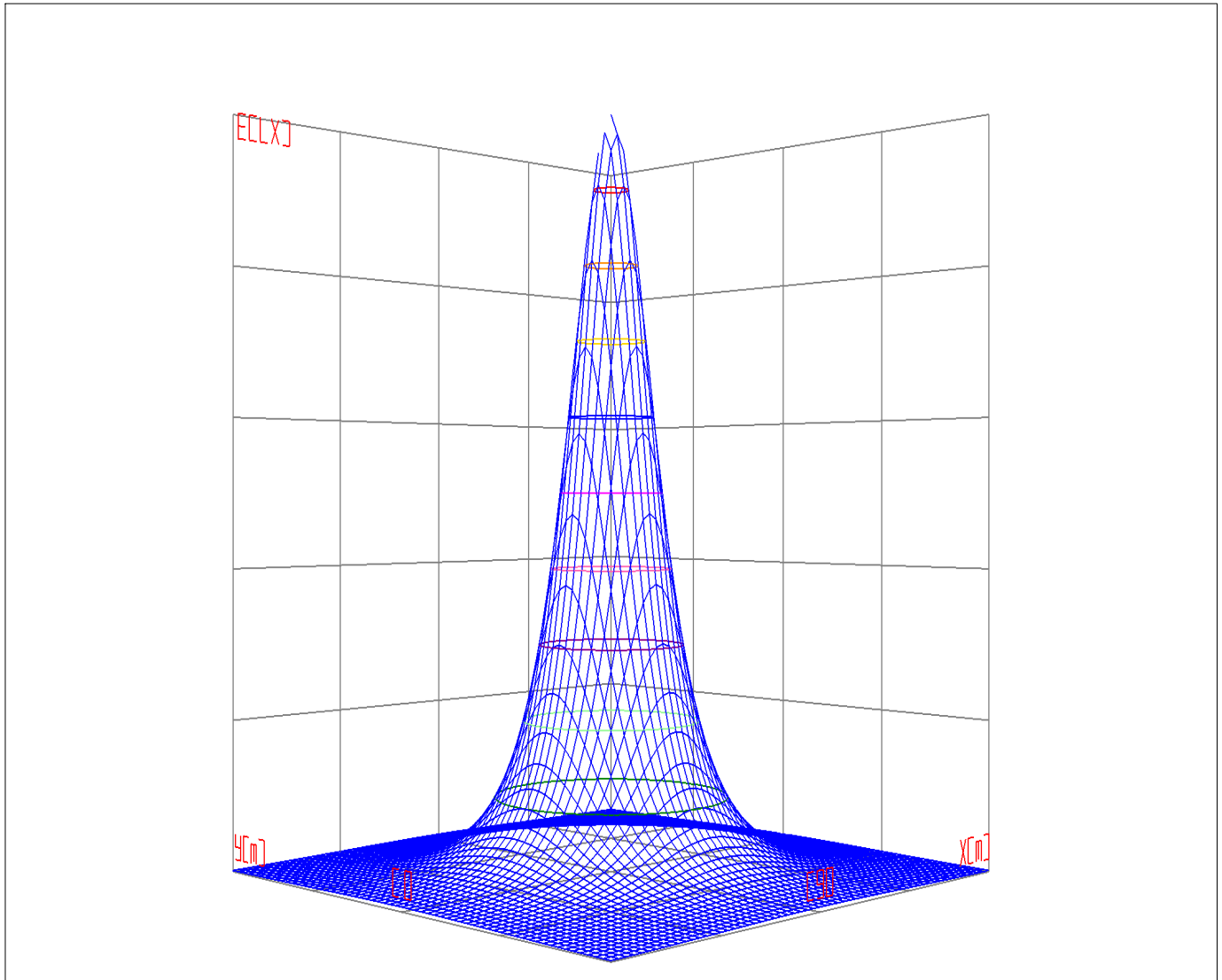
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3D Plane ISO Illuminance Diagram

Lum. Name: PL03-48-XX-01 5000K RA90 120D	Lum. Catalog:	Test ID: 01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine: GON-2000	Test Date: 2023/01/11

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

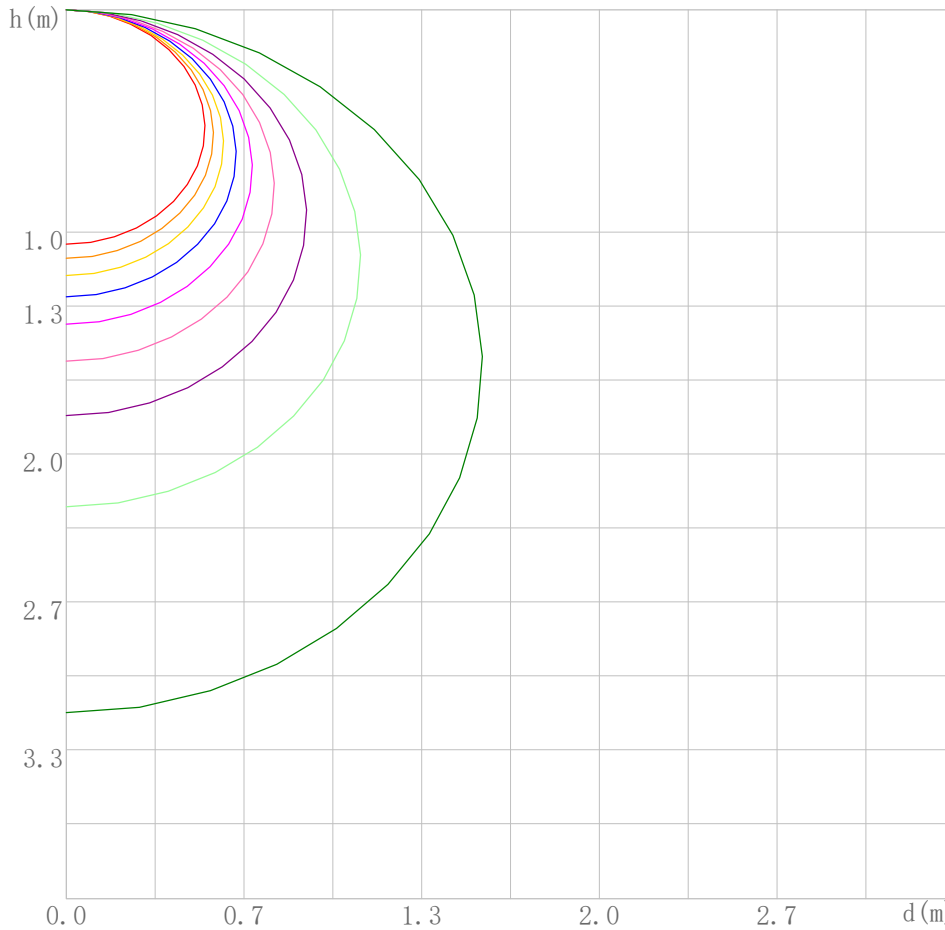
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Space ISO Illuminance Diagram

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Manufacture: Shenzhen Norming Lighting	Test Machine: GON-2000	Test Date: 2023/01/11

Space ISO Illuminance Curve



- Curves:
[Unit: lx]
[E_{Max}] = 1584.097
- [E_{Max}*90%]=1425.687
 - [E_{Max}*80%]=1267.278
 - [E_{Max}*70%]=1108.868
 - [E_{Max}*60%]=950.458
 - [E_{Max}*50%]=792.049
 - [E_{Max}*40%]=633.639
 - [E_{Max}*30%]=475.229
 - [E_{Max}*20%]=316.819
 - [E_{Max}*10%]=158.410

Space Plane Maximum Illuminance and @Angle:1584.10lx,0.0deg
Plane Maximum Lighting Intensity and @Angle:1584.097cd,0deg

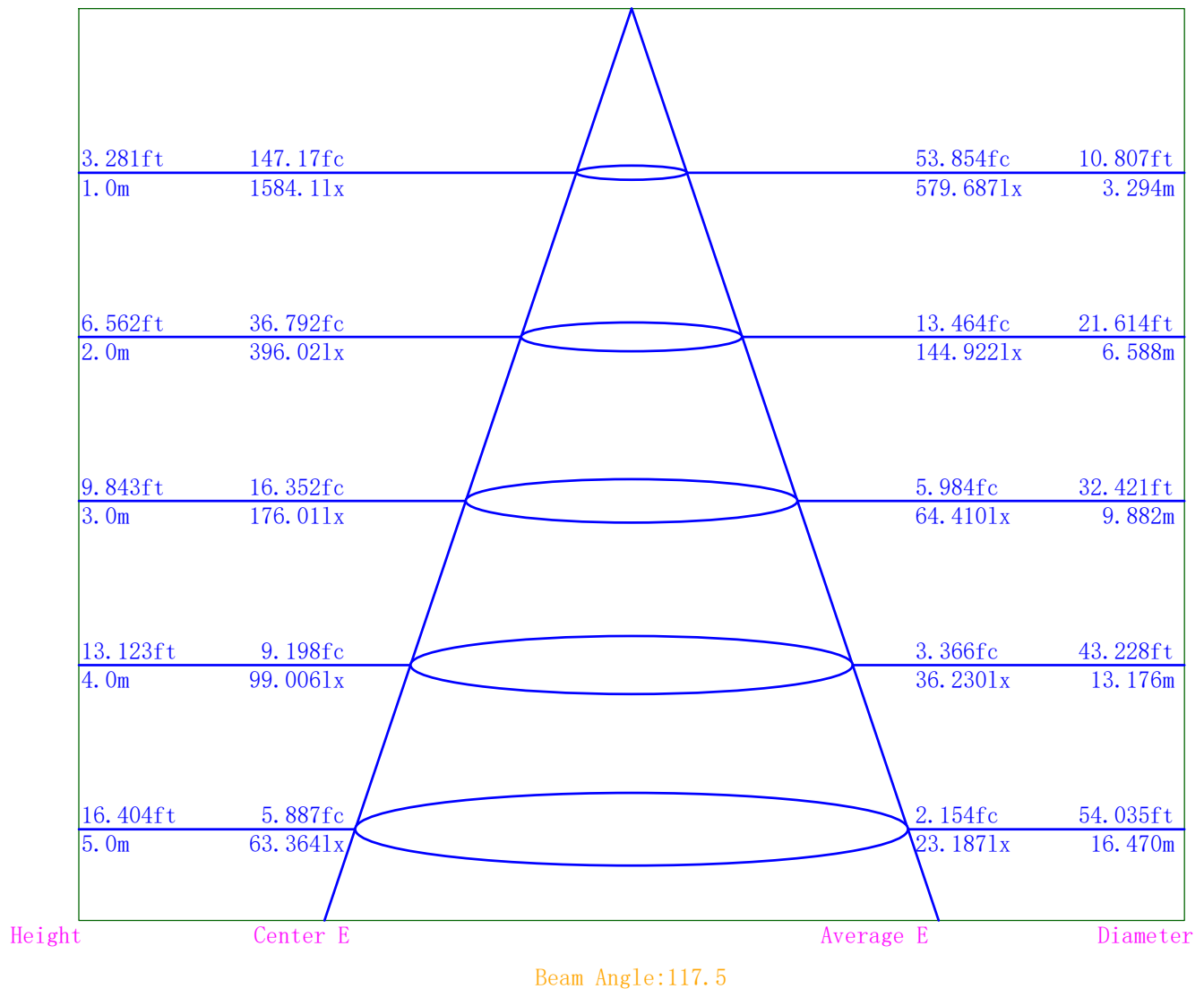
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Illuminance-Distance Diagram

Lum. Name: PL03-48-XX-01 5000K RA90 120D	Lum. Catalog:	Test ID: 01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine: GON-2000	Test Date: 2023/01/11

Illuminance-Distance Curve



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Indoor Luminance Limiting Curves

Lum. Name: PL03-48-XX-01 5000K RA90 120D	Lum. Catalog:	Test ID: 01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine: GON-2000	Test Date: 2023/01/11

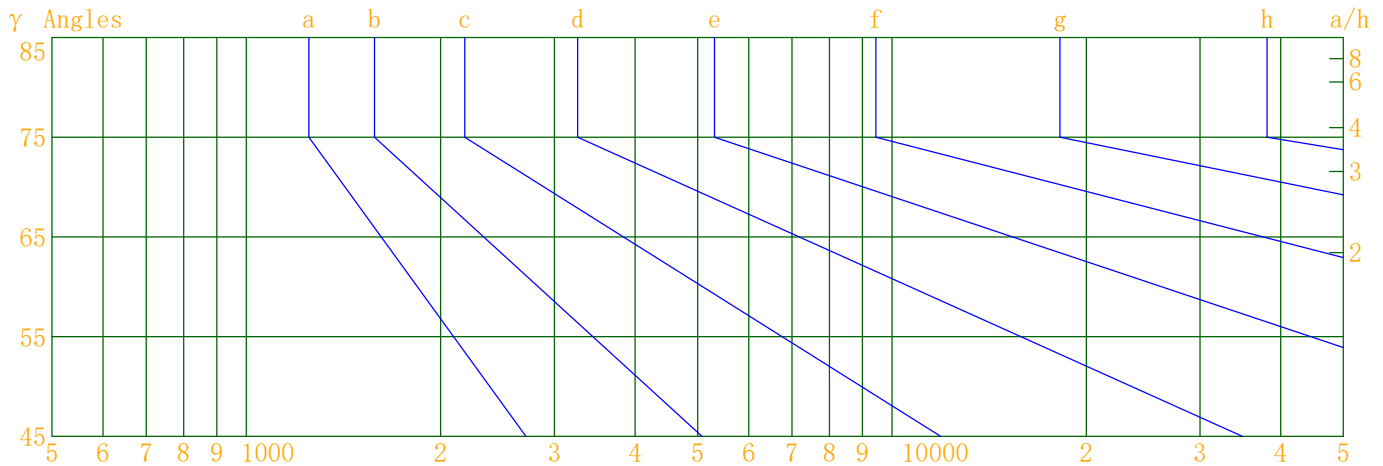
Glare Grade Table

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	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	281530	278995	275195	270243	262990	253618	242435	231206	230308
C90	282912	280816	278084	273950	268243	260671	252021	245450	258265

Luminance Limiting Curve



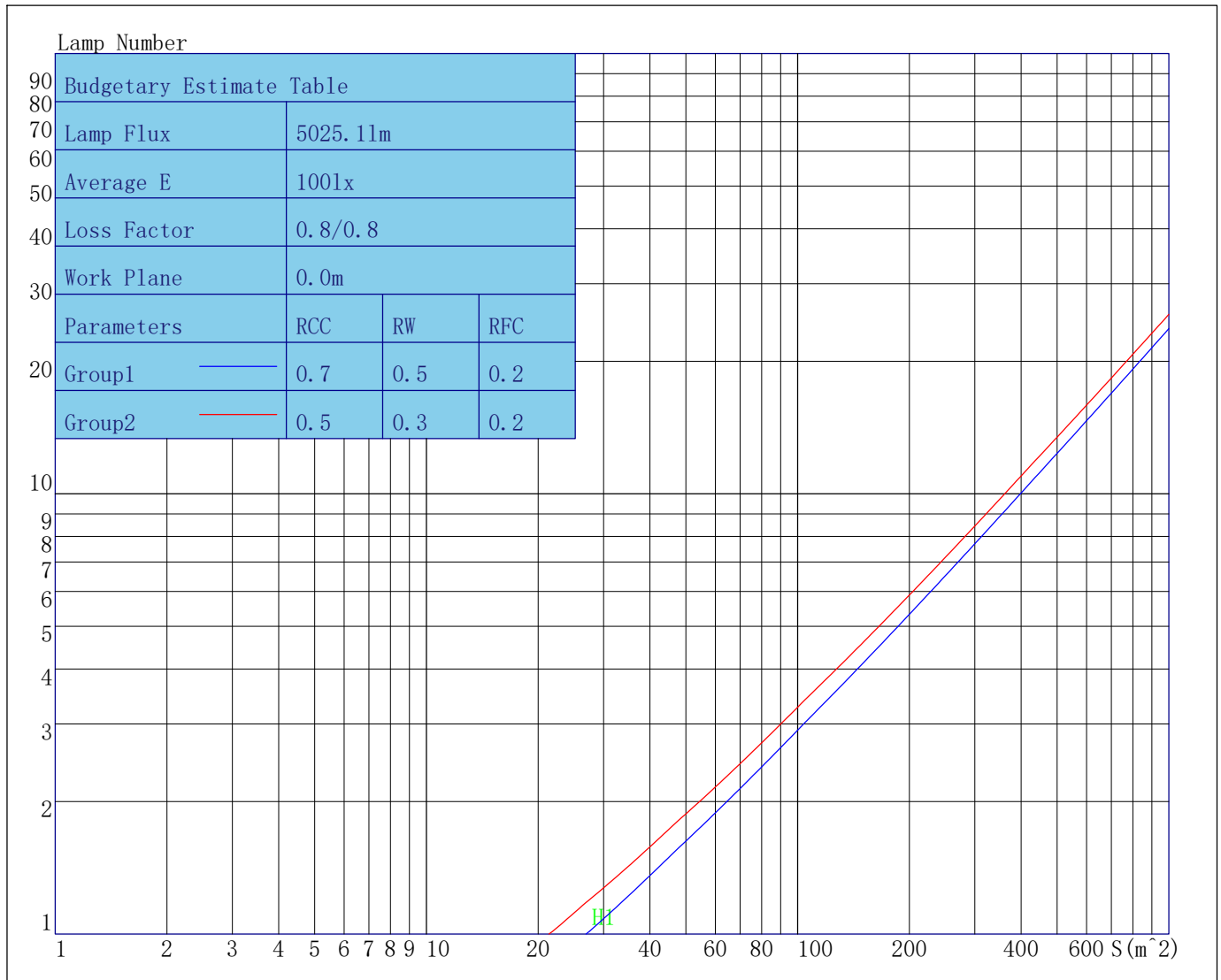
Luminous Size: Length(m)=0.074 Width(m)=0.074 Height(m)=0.000 Area(m²)=0.005476
 Luminous Type: Without Luminous Side
 Luminous Curves: C0-C180 Color: — C90-C270 Color: —

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Indoor Budgetary Estimate Table

Lum. Name: PL03-48-XX-01 5000K RA90 120D	Lum. Catalog:	Test ID: 01
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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

Lum. Name: PL03-48-XX-01 5000K RA90 120D	Lum. Catalog:	Test ID: 01
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Manufacture: Shenzhen Norming Lighting	Test Machine: GON-2000	Test Date: 2023/01/11

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	107	102	98	93	104	99	95	92	94	91	88	90	87	85	86	83	81	79			
2	97	88	81	75	94	86	80	74	82	77	72	78	74	70	75	71	68	65			
3	88	77	69	62	85	75	68	61	72	65	60	69	63	58	66	61	57	54			
4	81	68	59	52	78	67	58	52	64	56	51	61	55	50	58	53	48	46			
5	74	61	52	45	72	60	51	45	57	49	44	55	48	43	52	47	42	40			
6	68	55	46	39	66	54	45	39	51	44	38	49	43	37	47	41	37	35			
7	63	50	41	34	61	49	40	34	47	39	34	45	38	33	43	37	33	30			
8	59	45	36	31	57	44	36	30	43	35	30	41	34	30	40	34	29	27			
9	55	41	33	27	53	41	33	27	39	32	27	38	31	27	36	31	26	24			
10	51	38	30	25	50	37	30	25	36	29	24	35	29	24	34	28	24	22			

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Unified Glare Rating Table

Lum. Name: PL03-48-XX-01 5000K RA90 120D	Lum. Catalog:	Test ID: 01
Lamp Name:	Lamp Catalog: LED	Test Lab: Quality Department
Manufacture: Shenzhen Norming Lighting	Test Machine: GON-2000	Test Date: 2023/01/11

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	31.6	33.2	32.0	33.6	34.0	31.7	33.3	32.1	33.7	34.1
Y=3H	33.3	34.8	33.8	35.2	35.6	33.4	34.9	33.9	35.3	35.7
Y=4H	34.0	35.4	34.5	35.8	36.3	34.2	35.5	34.6	36.0	36.4
Y=6H	34.6	35.9	35.1	36.3	36.8	34.8	36.0	35.3	36.5	37.0
Y=8H	34.8	36.0	35.3	36.5	37.0	35.0	36.2	35.5	36.7	37.2
Y=12H	35.0	36.1	35.5	36.6	37.1	35.2	36.4	35.7	36.8	37.3
X=4H Y=2H	32.4	33.8	32.9	34.2	34.6	32.5	33.8	32.9	34.3	34.7
Y=3H	34.3	35.4	34.8	35.9	36.4	34.4	35.6	34.9	36.0	36.5
Y=4H	35.1	36.2	35.6	36.7	37.2	35.3	36.3	35.8	36.8	37.3
Y=6H	35.9	36.8	36.4	37.3	37.8	36.0	36.9	36.6	37.5	38.0
Y=8H	36.1	37.0	36.7	37.5	38.0	36.3	37.2	36.9	37.7	38.2
Y=12H	36.4	37.1	36.9	37.7	38.2	36.6	37.4	37.1	37.9	38.5
X=8H Y=4H	35.5	36.4	36.0	36.9	37.4	35.7	36.5	36.2	37.0	37.6
Y=6H	36.4	37.1	36.9	37.6	38.3	36.6	37.3	37.1	37.8	38.5
Y=8H	36.8	37.4	37.3	38.0	38.5	37.0	37.6	37.5	38.2	38.7
Y=12H	37.1	37.6	37.7	38.2	38.8	37.3	37.9	37.9	38.4	39.1
X=12H Y=4H	35.6	36.3	36.1	36.9	37.4	35.7	36.5	36.3	37.0	37.6
Y=6H	36.5	37.1	37.1	37.7	38.3	36.7	37.3	37.3	37.8	38.5
Y=8H	36.9	37.5	37.5	38.0	38.7	37.1	37.7	37.7	38.2	38.9
Variations with the observer position at spacings										
S=1.0H	0.4/-0.4					0.4/-0.4				
S=1.5H	0.7/-0.8					0.7/-0.7				
S=2.0H	0.8/-1.0					0.8/-1.0				
Reduced UGR Table:										
Nordic Standard Table:	BKO					BKO				
Correction Value	3.2					3.3				

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

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Candela Tabulation

V/H	C0.0	C90.0	C180.0	C270.0
γ 0.0	1584.10	1584.10	1584.10	1584.10
γ 5.0	1578.12	1574.46	1581.88	1573.35
γ 10.0	1556.93	1555.14	1564.80	1553.80
γ 15.0	1524.01	1523.85	1535.53	1521.22
γ 20.0	1478.84	1480.02	1494.07	1476.76
γ 25.0	1422.24	1424.64	1440.78	1420.86
γ 30.0	1355.93	1359.22	1378.31	1355.19
γ 35.0	1278.10	1281.32	1302.66	1277.39
γ 40.0	1188.35	1193.33	1216.80	1189.79
γ 45.0	1090.12	1095.47	1120.96	1092.50
γ 50.0	982.04	988.45	1016.09	986.85
γ 55.0	864.36	873.44	902.90	873.40
γ 60.0	739.92	750.08	781.47	752.23
γ 65.0	608.63	620.78	652.75	625.63
γ 70.0	475.00	488.21	519.26	496.20
γ 75.0	343.60	357.19	385.66	367.42
γ 80.0	219.85	233.40	258.16	244.91
γ 85.0	109.92	123.26	142.26	135.43
γ 90.0	38.64	41.81	50.16	46.73
γ 95.0	35.44	36.24	33.36	33.71
γ 100.0	33.25	34.00	32.02	32.26
γ 105.0	31.53	32.33	30.89	31.28
γ 110.0	30.10	30.63	30.44	30.55
γ 115.0	29.65	29.64	29.72	30.37
γ 120.0	28.79	29.05	29.87	29.91
γ 125.0	28.98	28.68	29.44	29.31
γ 130.0	29.34	28.90	29.41	29.18
γ 135.0	29.01	28.92	29.67	29.79
γ 140.0	29.21	29.27	29.90	29.64
γ 145.0	29.51	29.42	30.45	30.04
γ 150.0	30.00	29.83	30.24	30.28
γ 155.0	30.33	30.23	30.65	30.55
γ 160.0	31.10	30.75	31.13	30.89
γ 165.0	31.07	31.01	31.55	31.08
γ 170.0	31.87	31.57	31.87	31.36
γ 175.0	31.64	31.90	31.56	31.92
γ 180.0	31.82	31.82	31.82	31.82
