Report No.: Test Time: 2025-09-17 10:00

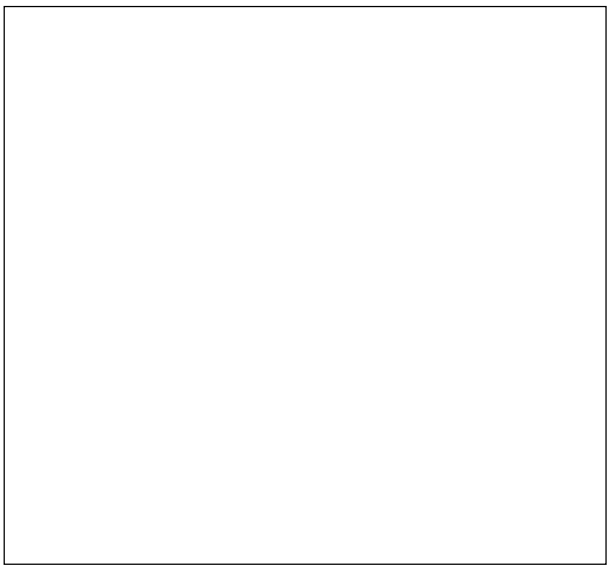
Luminaire Property

Luminaire Manufacturer:
Luminaire Description: HCP-262560-4K
Lamp Description: 0
Luminous Length (mm): 0
Luminous Width (mm): 0
Luminous Height (mm): 0
Voltage: 230.6 V
Current: 0.084 A
Power: 18.85 W
Power Factor: 0.969

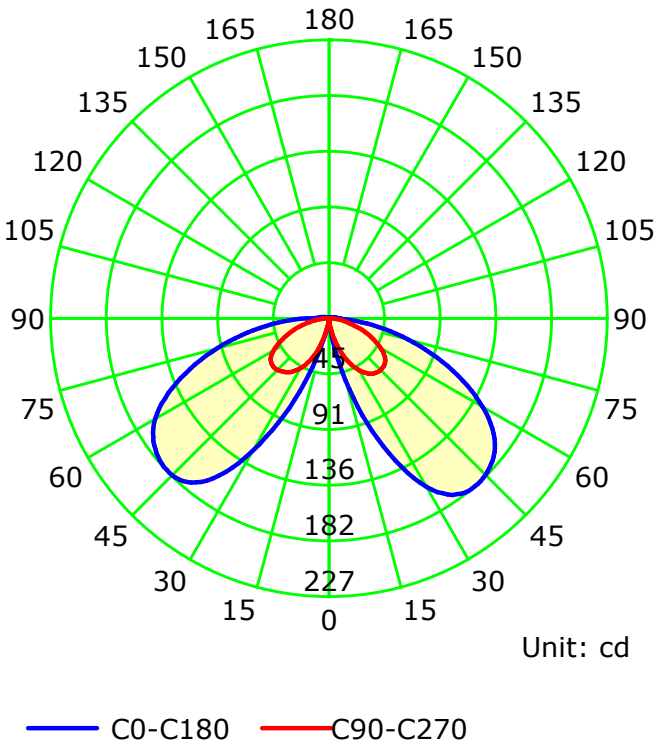
Photometric Results

CIE Class: Direct
Total Rated Lamp Lumens: 470.0 lm
Measurement Flux: 470 lm
Efficiency: 100%
Downward Ratio: 98%
Upward Ratio: 2%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 174.9, 169.7, 175.1, 174.8
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 146.2, 141.7, 141.6, 139.9
Luminaire Efficacy Rating (LER): 24.98
Central Intensity: 0.17 cd
Max. Intensity: 182.06 cd
Pos of Max. Intensity: H0 V42
S/MH(C0/C180): 15.64
S/MH(C90/C270): 10.44

Picture Of Luminaire



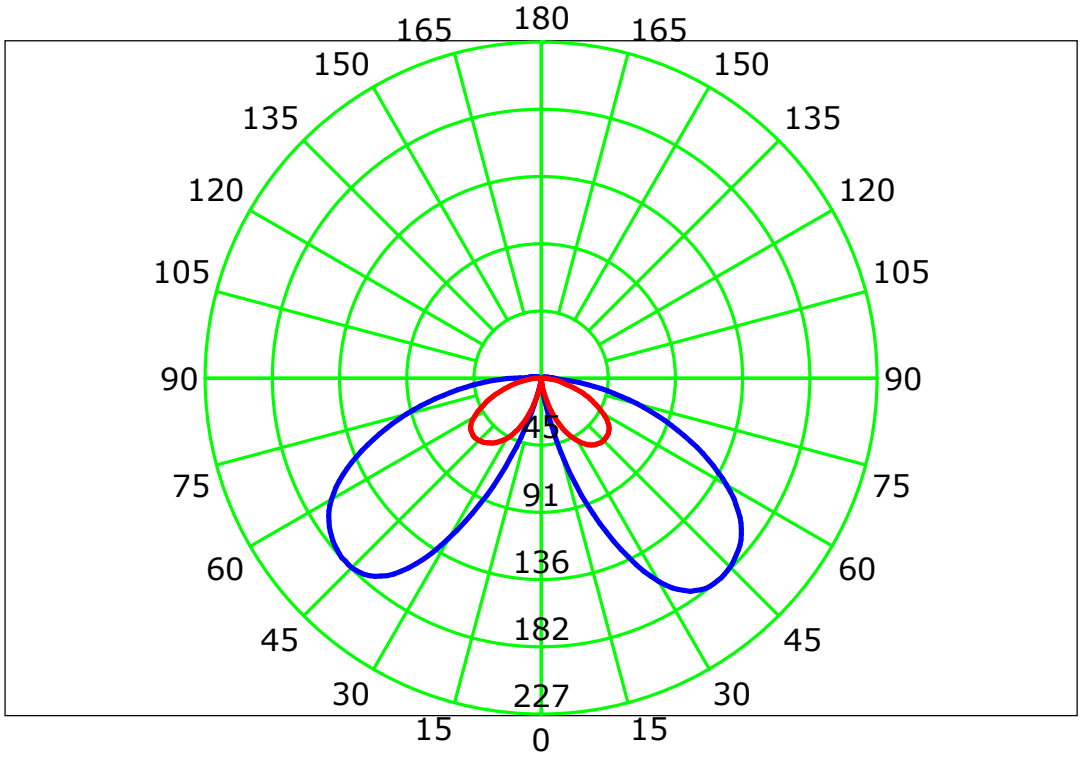
Luminous Intensity Distribution Curve

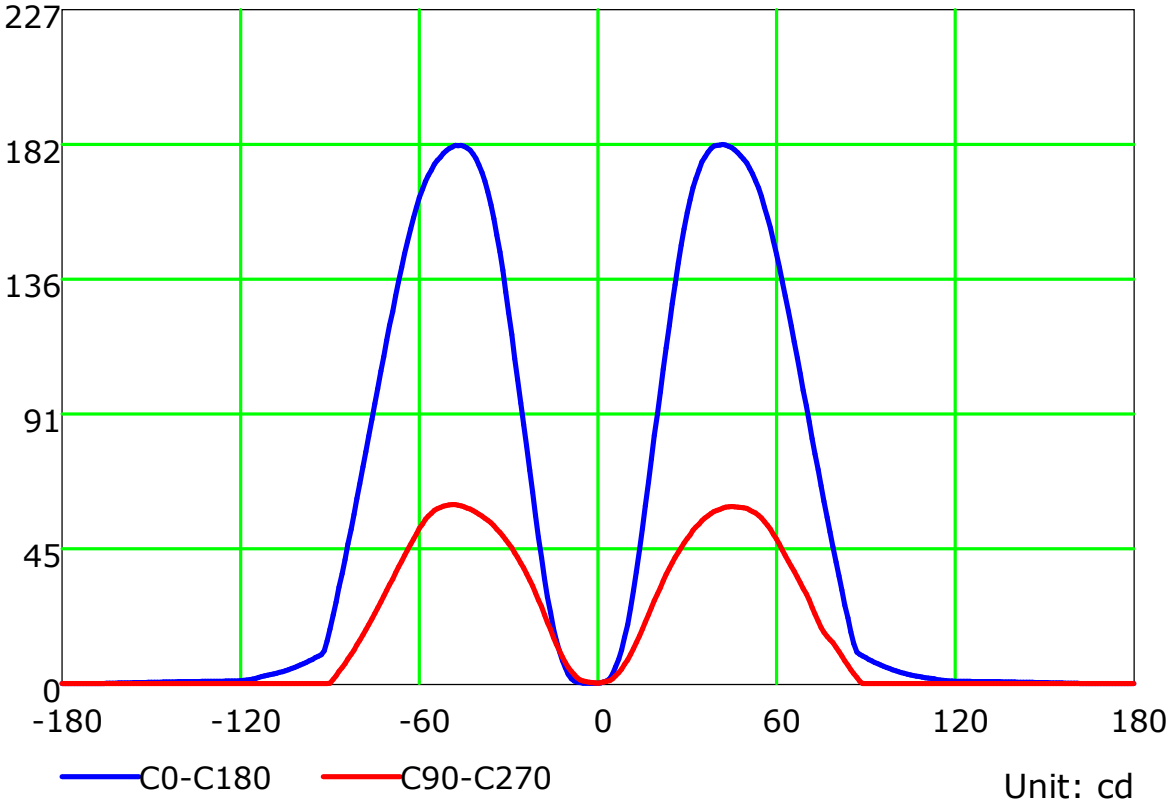


Unit: cd

C Plane (°):0.0-360.0: 45.0
Gamma Plane (°):0.0-180.0:1.0
Test Lab: NINGBO LED LIGHTING
Test Device: GPM-1600L
Test Type: TYPE C
Distance: 6.500 m
Temperature: 25°C
Humidity:
Operator: DING LI
Inspector:

Luminous Intensity Distribution Curve

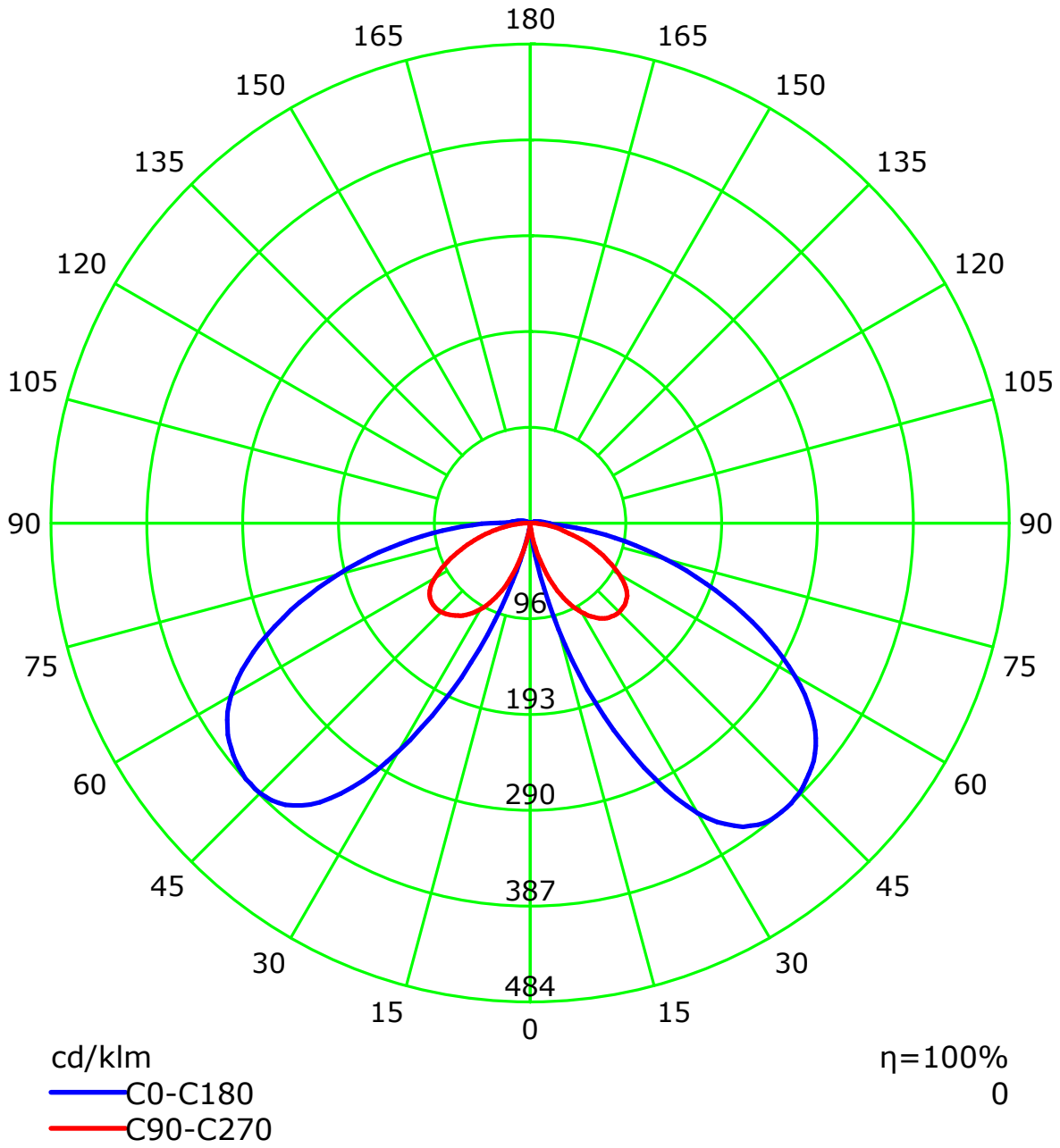




C Plane (°):0.0-360.0: 45.0
Test Lab: NINGBO LED LIGHTING
Test Type: TYPE C
Temperature: 25°C
Operator: DING LI

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1600L
Distance: 6.500 m
Humidity:
Inspector:

Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 45.0
Test Lab: NINGBO LED LIGHTING
Test Type: TYPE C
Temperature: 25°C
Operator: DING LI

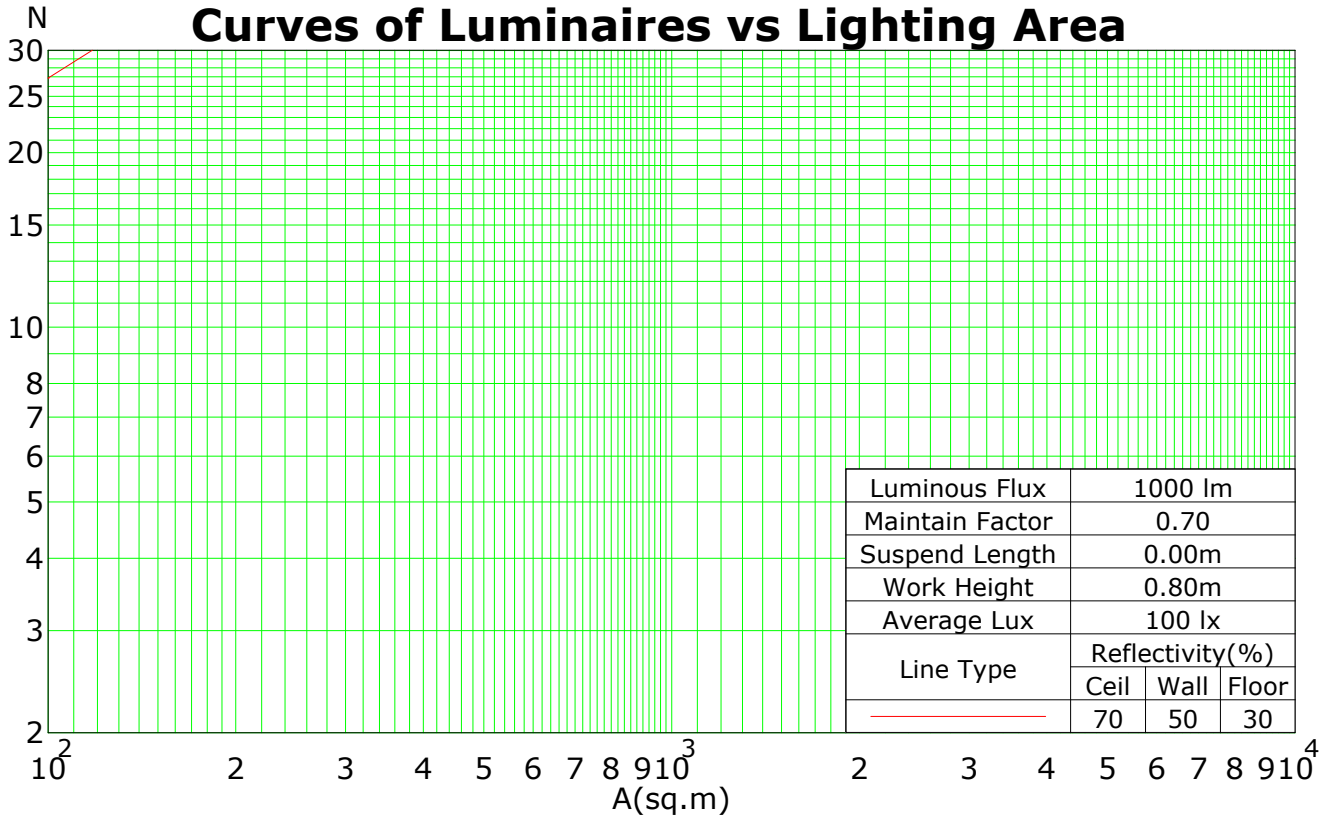
Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1600L
Distance: 6.500 m
Humidity:
Inspector:

Coefficients Of Utilization - Zonal Cavity Method

RC	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.3	0.3	0.3	0.1	0.1	0.1	0
RW	0.7	0.5	0.3	0.1	0.7	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0
RCR	RF = 0.2																	
0	119	119	119	119	115	115	115	115	110	110	110	105	105	105	100	100	100	98
1	105	99	94	89	102	97	92	87	92	88	84	87	84	81	83	81	78	76
2	93	83	75	68	90	81	73	67	77	71	65	73	68	63	70	65	61	59
3	83	71	61	53	80	69	60	52	65	58	51	62	55	50	59	53	49	46
4	75	61	50	42	72	59	49	42	56	48	41	53	46	40	51	45	39	37
5	68	53	42	34	65	51	42	34	49	40	33	46	39	33	44	38	32	30
6	62	46	36	29	59	45	35	28	43	34	28	41	33	27	39	32	27	24
7	56	41	31	24	54	40	30	24	38	30	23	36	29	23	35	28	23	20
8	52	37	27	20	50	36	26	20	34	26	20	33	25	19	31	24	19	17
9	48	33	24	17	46	32	23	17	31	23	17	29	22	17	28	21	16	14
10	44	30	21	15	43	29	21	15	28	20	15	27	20	14	26	19	14	12

Spacing Criteria (0-180): 15.64
Spacing Criteria (90-270): 10.44
Spacing Criteria (Diagonal): 11.77

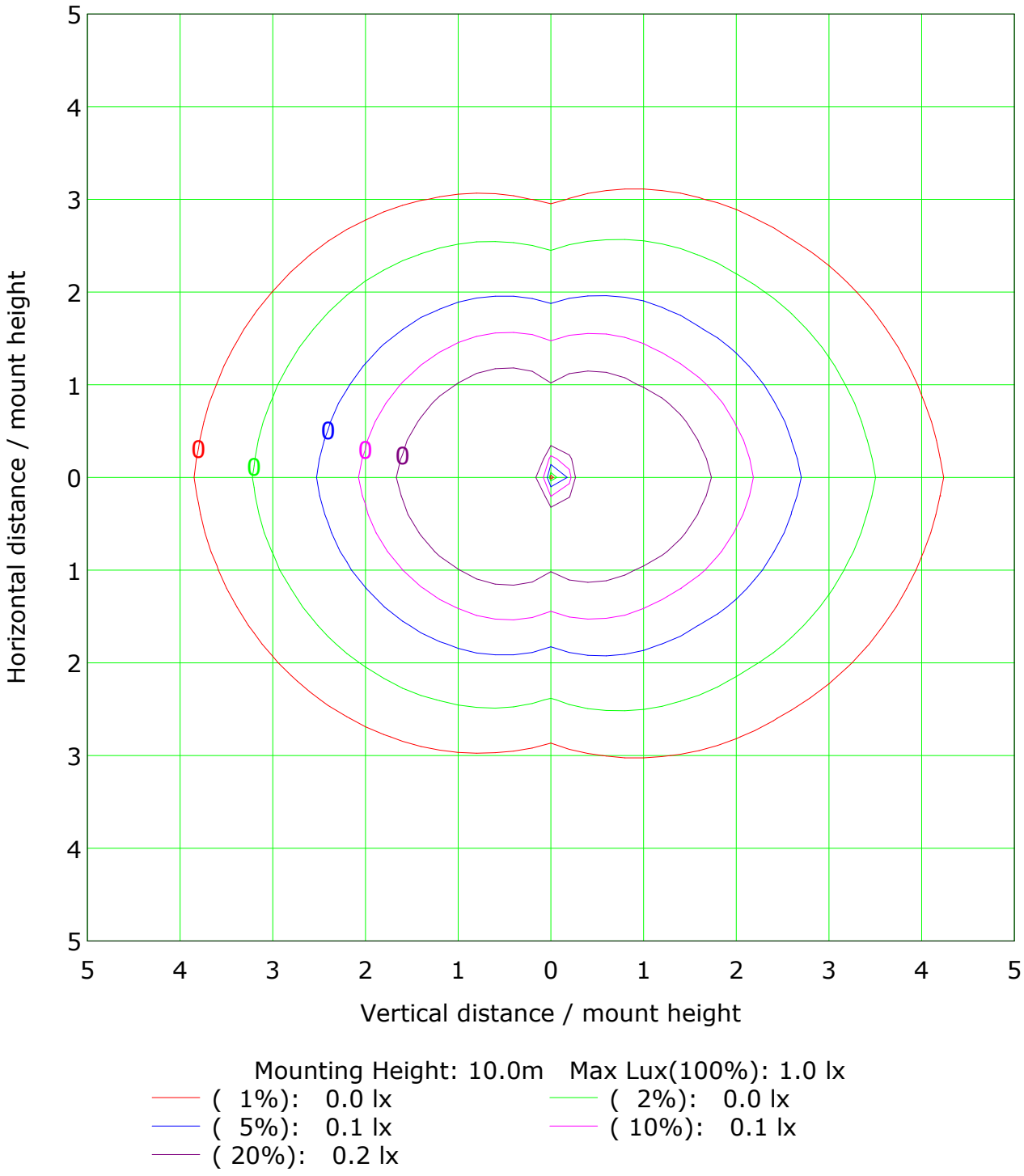
Curves of Luminaires vs Lighting Area



C Plane (°):0.0-360.0: 45.0
Test Lab: NINGBO LED LIGHTING
Test Type: TYPE C
Temperature: 25°C
Operator: DING LI

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1600L
Distance: 6.500 m
Humidity:
Inspector:

IsoLux Plot



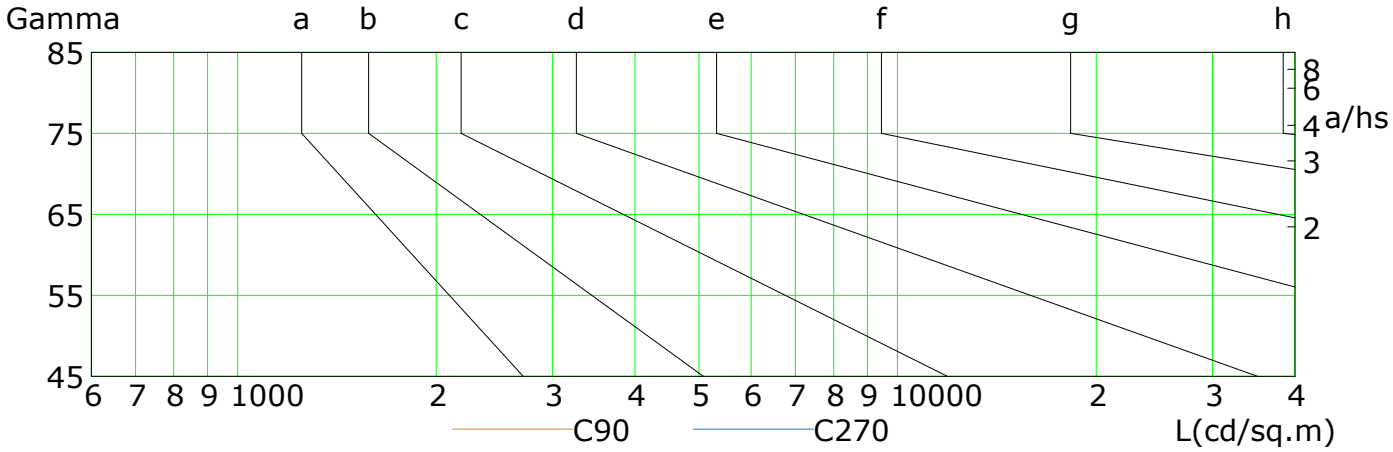
Mounting Height: 10.0m Max Lux(100%): 1.0 lx

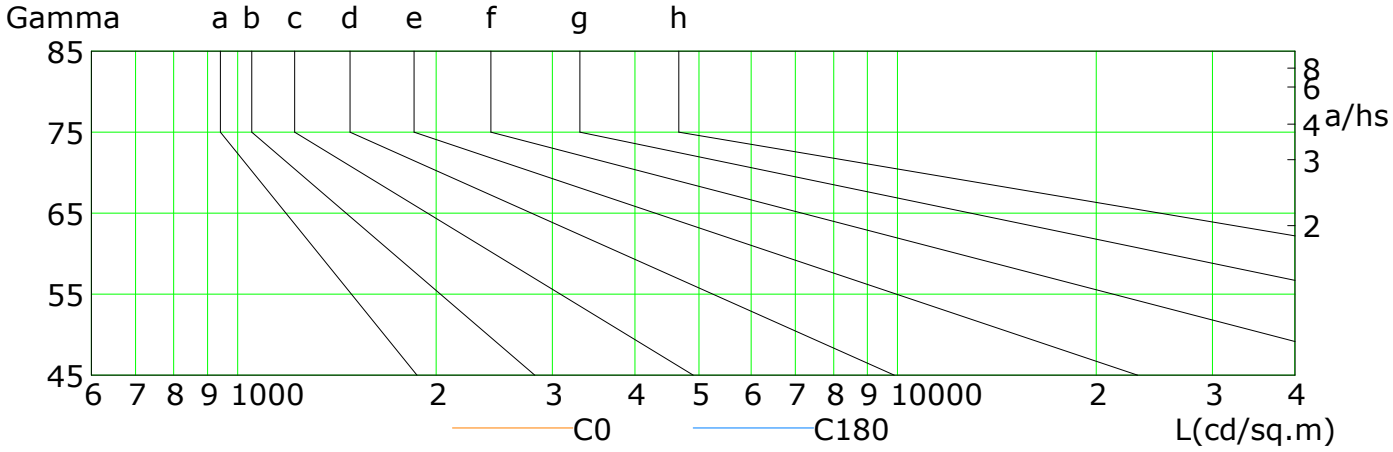
(1%): 0.0 lx
(2%): 0.0 lx
(5%): 0.1 lx
(10%): 0.1 lx
(20%): 0.2 lx

C Plane (°):0.0-360.0: 45.0
Gamma Plane (°):0.0-180.0:1.0
Test Lab: NINGBO LED LIGHTING
Test Device: GPM-1600L
Test Type: TYPE C
Distance: 6.500 m
Temperature: 25°C
Humidity:
Operator: DING LI
Inspector:

Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h



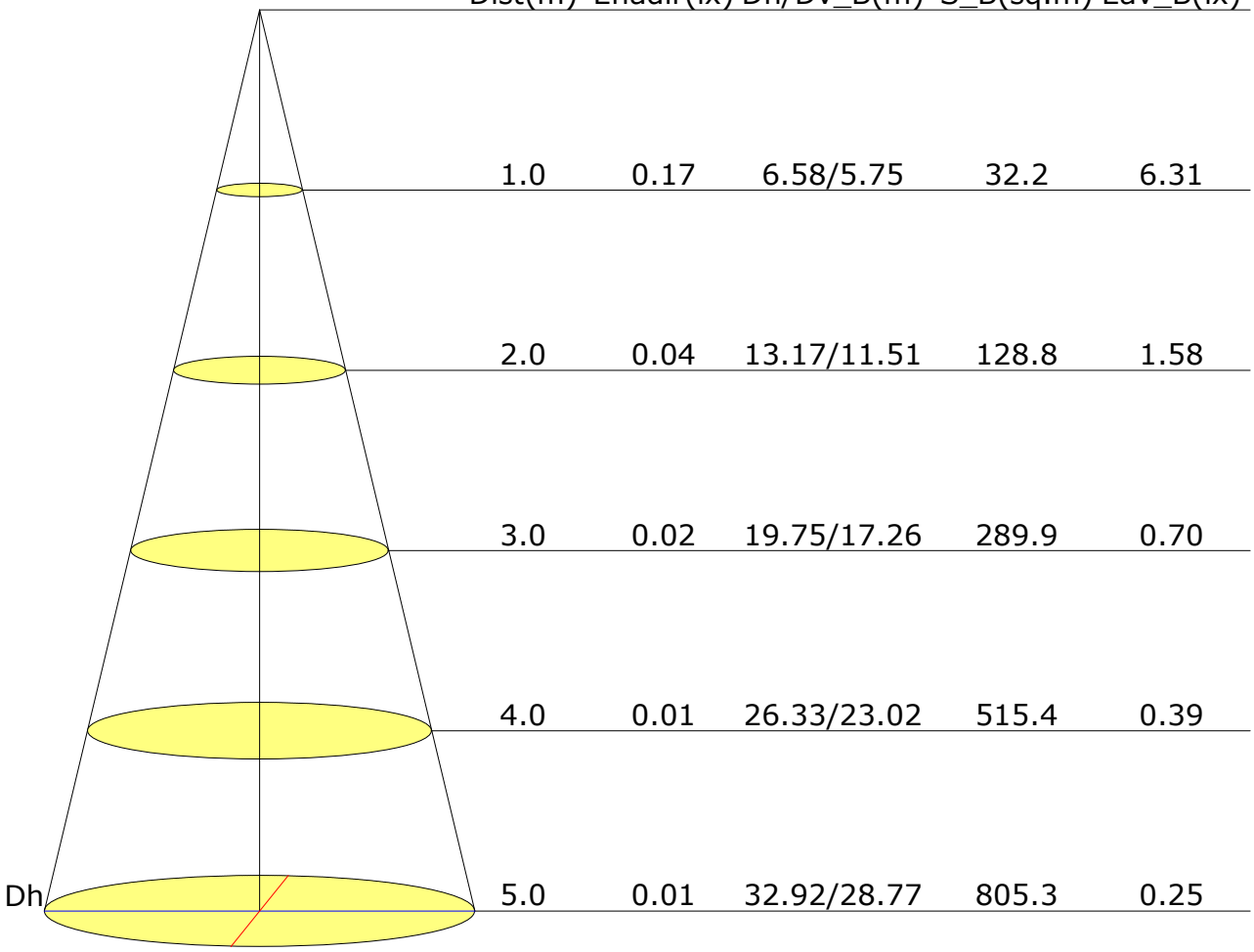


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	181	176	164	145	121	94	67	41	17
C90	60	59	56	49	40	30	19	12	5
C180	181	181	175	164	145	121	95	67	42
C270	60	60	59	52	43	33	24	15	7

C Plane (°):0.0-360.0: 45.0
Test Lab: NINGBO LED LIGHTING
Test Type: TYPE C
Temperature: 25°C
Operator: DING LI

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1600L
Distance: 6.500 m
Humidity:
Inspector:

Illuminance at a Distance



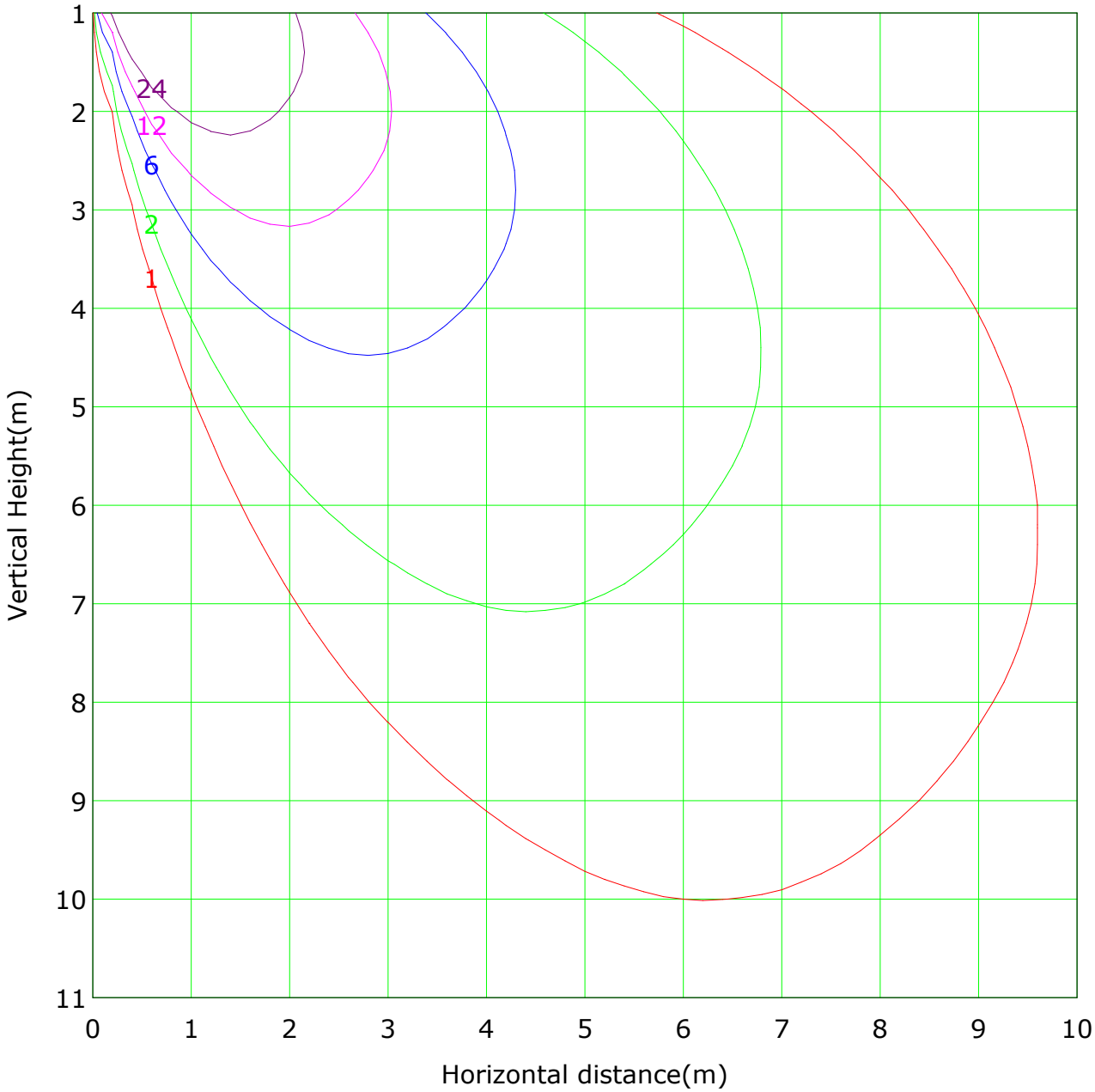
Dist(m)	Enadir(lx)	Dh/Dv_B(m)	S_B(sq.m)	Eav_B(lx)
1.0	0.17	6.58/5.75	32.2	6.31
2.0	0.04	13.17/11.51	128.8	1.58
3.0	0.02	19.75/17.26	289.9	0.70
4.0	0.01	26.33/23.02	515.4	0.39
5.0	0.01	32.92/28.77	805.3	0.25

Beam Angle(B): H146.2 V141.7 Field Angle(F): H174.9 V169.7

C Plane (°):0.0-360.0: 45.0
Test Lab: NINGBO LED LIGHTING
Test Type: TYPE C
Temperature: 25°C
Operator: DING LI

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1600L
Distance: 6.500 m
Humidity:
Inspector:

Vertical IsoLux Plot

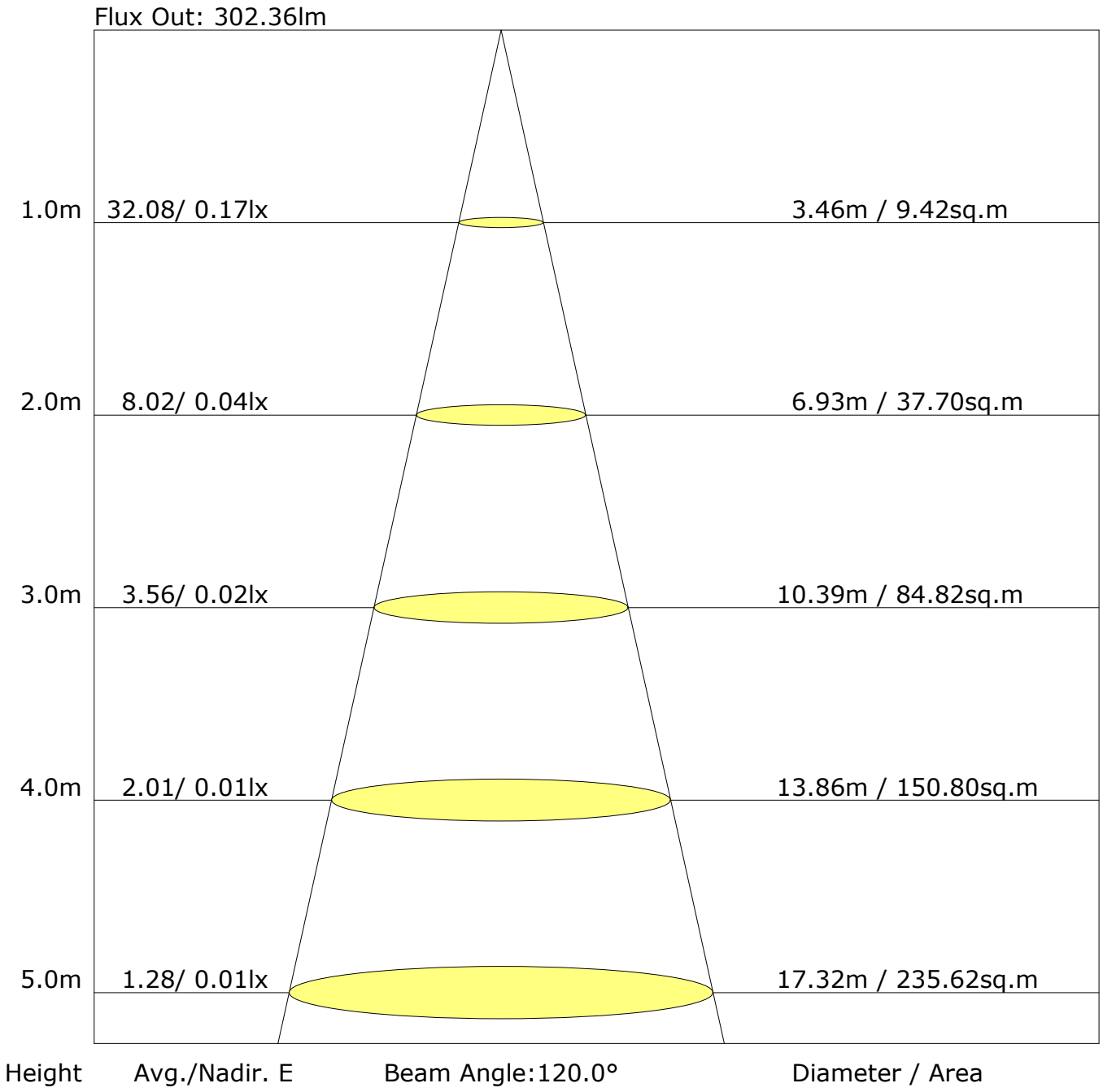


Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 120.1 lx

(1%): 1.2 lx
(2%): 2.4 lx
(5%): 6.0 lx
(10%): 12.0 lx
(20%): 24.0 lx

C Plane (°):0.0-360.0: 45.0
Gamma Plane (°):0.0-180.0:1.0
Test Lab: NINGBO LED LIGHTING
Test Device: GPM-1600L
Test Type: TYPE C
Distance: 6.500 m
Temperature: 25°C
Humidity:
Operator: DING LI
Inspector:

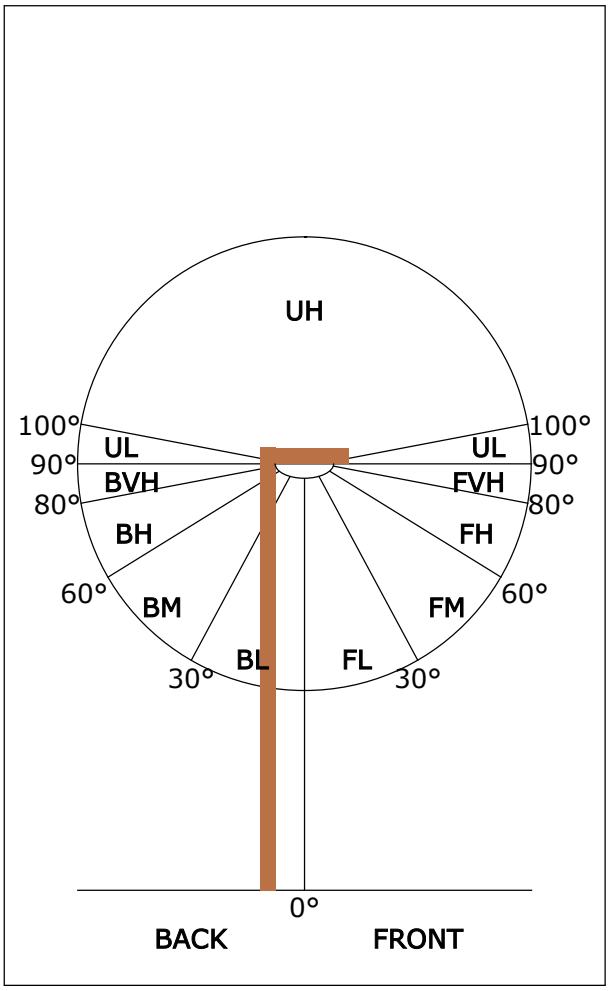
The Average Illuminance Effective Figure



C Plane (°):0.0-360.0: 45.0
Test Lab: NINGBO LED LIGHTING
Test Type: TYPE C
Temperature: 25°C
Operator: DING LI

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1600L
Distance: 6.500 m
Humidity:
Inspector:

FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM



ZONE	LUMENS	% LAMP LUMENS
FORWARD LIGHT	227	48.3
FL (0°-30°)	23	4.9
FM (30°-60°)	127	27.1
FH (60°-80°)	67	14.2
FVH (80°-90°)	10	2.2
BACK LIGHT	233	49.5
BL (0°-30°)	23	4.8
BM (30°-60°)	130	27.6
BH (60°-80°)	69	14.8
BVH (80°-90°)	11	2.4
UP LIGHT	11	2.2
UL (90°-100°)	6	1.2
UH (100°-180°)	5	1.1
TRAPPED LIGHT	NA	NA

BUG(**B**acklight,**U**plight,**G**lare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B0 U1 G1
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B0 U1 G1

C Plane (°):0.0-360.0: 45.0
Test Lab: NINGBO LED LIGHTING
Test Type: TYPE C
Temperature: 25°C
Operator: DING LI

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1600L
Distance: 6.500 m
Humidity:
Inspector:

Zonal Lumen

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	0.2	0.0	0.0	0.00	0.00
1.0-2.0	0.4	0.0	0.0	0.00	0.00
2.0-3.0	0.5	0.0	0.0	0.00	0.00
3.0-4.0	0.8	0.0	0.0	0.00	0.00
4.0-5.0	1.3	0.0	0.0	0.00	0.00
5.0-6.0	2.1	0.0	0.0	0.00	0.01
6.0-7.0	3.3	0.0	0.1	0.01	0.02
7.0-8.0	4.7	0.1	0.2	0.01	0.03
8.0-9.0	6.5	0.1	0.3	0.02	0.05
9.0-10.0	8.7	0.2	0.4	0.03	0.09
10.0-11.0	11.4	0.2	0.6	0.05	0.14
11.0-12.0	14.5	0.3	1.0	0.07	0.20
12.0-13.0	17.9	0.4	1.4	0.09	0.30
13.0-14.0	21.9	0.6	1.9	0.12	0.41
14.0-15.0	26.1	0.7	2.7	0.15	0.57
15.0-16.0	30.6	0.9	3.6	0.19	0.76
16.0-17.0	35.5	1.1	4.7	0.24	0.99
17.0-18.0	40.3	1.3	6.0	0.28	1.28
18.0-19.0	45.5	1.6	7.6	0.34	1.61
19.0-20.0	50.5	1.8	9.4	0.39	2.01
20.0-21.0	55.4	2.1	11.6	0.45	2.46
21.0-22.0	60.4	2.4	14.0	0.52	2.98
22.0-23.0	65.3	2.7	16.7	0.58	3.56
23.0-24.0	70.2	3.1	19.8	0.65	4.21
24.0-25.0	74.9	3.4	23.2	0.72	4.94
25.0-26.0	79.3	3.7	26.9	0.80	5.73
26.0-27.0	83.9	4.1	31.0	0.87	6.61
27.0-28.0	88.3	4.5	35.5	0.95	7.56
28.0-29.0	92.3	4.8	40.3	1.03	8.59
29.0-30.0	96.3	5.2	45.6	1.11	9.69
30.0-31.0	99.9	5.6	51.1	1.18	10.88
31.0-32.0	103.3	5.9	57.0	1.26	12.13
32.0-33.0	106.2	6.3	63.3	1.33	13.47
33.0-34.0	108.7	6.6	69.9	1.40	14.87
34.0-35.0	110.9	6.9	76.8	1.47	16.33
35.0-36.0	112.7	7.2	83.9	1.53	17.86

C Plane (°):0.0-360.0: 45.0
Test Lab: NINGBO LED LIGHTING
Test Type: TYPE C
Temperature: 25°C
Operator: DING LI

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1600L
Distance: 6.500 m
Humidity:
Inspector:

Zonal Lumen (Continue 1)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	114.2	7.4	91.4	1.59	19.44
37.0-38.0	115.4	7.7	99.1	1.64	21.08
38.0-39.0	116.4	7.9	107.0	1.69	22.77
39.0-40.0	117.0	8.2	115.2	1.74	24.51
40.0-41.0	117.4	8.4	123.5	1.78	26.29
41.0-42.0	117.7	8.6	132.1	1.82	28.11
42.0-43.0	117.8	8.7	140.8	1.86	29.96
43.0-44.0	117.7	8.9	149.7	1.89	31.86
44.0-45.0	117.5	9.0	158.7	1.92	33.78
45.0-46.0	117.2	9.2	167.9	1.95	35.73
46.0-47.0	116.8	9.3	177.2	1.98	37.71
47.0-48.0	116.3	9.4	186.6	2.00	39.71
48.0-49.0	115.7	9.5	196.1	2.02	41.73
49.0-50.0	115.1	9.6	205.7	2.04	43.77
50.0-51.0	114.2	9.7	215.4	2.06	45.83
51.0-52.0	113.2	9.7	225.1	2.07	47.89
52.0-53.0	112.1	9.8	234.8	2.08	49.97
53.0-54.0	110.9	9.8	244.6	2.08	52.05
54.0-55.0	109.4	9.8	254.4	2.08	54.13
55.0-56.0	107.8	9.7	264.1	2.07	56.20
56.0-57.0	105.9	9.7	273.8	2.06	58.26
57.0-58.0	104.0	9.6	283.4	2.05	60.31
58.0-59.0	101.8	9.5	293.0	2.03	62.34
59.0-60.0	99.4	9.4	302.4	2.00	64.34
60.0-61.0	96.9	9.2	311.6	1.97	66.30
61.0-62.0	94.1	9.1	320.7	1.93	68.23
62.0-63.0	91.3	8.9	329.6	1.89	70.12
63.0-64.0	88.4	8.7	338.2	1.85	71.97
64.0-65.0	85.3	8.4	346.7	1.80	73.76
65.0-66.0	82.3	8.2	354.9	1.75	75.51
66.0-67.0	79.1	8.0	362.8	1.69	77.20
67.0-68.0	75.7	7.7	370.5	1.63	78.84
68.0-69.0	72.4	7.4	377.9	1.57	80.41
69.0-70.0	69.1	7.1	385.0	1.51	81.92
70.0-71.0	65.8	6.8	391.8	1.45	83.36
71.0-72.0	62.3	6.5	398.3	1.38	84.74

C Plane (°):0.0-360.0: 45.0
Test Lab: NINGBO LED LIGHTING
Test Type: TYPE C
Temperature: 25°C
Operator: DING LI

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1600L
Distance: 6.500 m
Humidity:
Inspector:

Zonal Lumen (Continue 2)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
72.0-73.0	58.9	6.2	404.4	1.31	86.05
73.0-74.0	55.4	5.8	410.3	1.24	87.29
74.0-75.0	52.0	5.5	415.7	1.17	88.46
75.0-76.0	48.6	5.2	420.9	1.10	89.56
76.0-77.0	45.2	4.8	425.7	1.03	90.59
77.0-78.0	42.0	4.5	430.2	0.96	91.54
78.0-79.0	38.9	4.2	434.4	0.89	92.43
79.0-80.0	35.6	3.8	438.2	0.82	93.25
80.0-81.0	32.4	3.5	441.7	0.75	93.99
81.0-82.0	29.3	3.2	444.9	0.68	94.67
82.0-83.0	26.1	2.8	447.8	0.60	95.27
83.0-84.0	23.1	2.5	450.3	0.54	95.81
84.0-85.0	20.1	2.2	452.5	0.47	96.28
85.0-86.0	17.2	1.9	454.4	0.40	96.68
86.0-87.0	14.6	1.6	456.0	0.34	97.02
87.0-88.0	12.3	1.3	457.3	0.29	97.30
88.0-89.0	10.4	1.1	458.4	0.24	97.55
89.0-90.0	8.9	1.0	459.4	0.21	97.75
90.0-91.0	7.5	0.8	460.2	0.17	97.93
91.0-92.0	6.4	0.7	460.9	0.15	98.08
92.0-93.0	5.8	0.6	461.6	0.13	98.21
93.0-94.0	5.4	0.6	462.2	0.13	98.34
94.0-95.0	5.1	0.6	462.7	0.12	98.46
95.0-96.0	4.8	0.5	463.2	0.11	98.57
96.0-97.0	4.5	0.5	463.7	0.10	98.67
97.0-98.0	4.2	0.5	464.2	0.10	98.77
98.0-99.0	3.9	0.4	464.6	0.09	98.86
99.0-100.0	3.7	0.4	465.0	0.08	98.94
100.0-101.0	3.4	0.4	465.4	0.08	99.02
101.0-102.0	3.2	0.3	465.7	0.07	99.09
102.0-103.0	3.0	0.3	466.0	0.07	99.16
103.0-104.0	2.7	0.3	466.3	0.06	99.22
104.0-105.0	2.5	0.3	466.6	0.06	99.28
105.0-106.0	2.4	0.2	466.8	0.05	99.33
106.0-107.0	2.2	0.2	467.1	0.05	99.38
107.0-108.0	2.0	0.2	467.3	0.05	99.43

C Plane (°):0.0-360.0: 45.0
Test Lab: NINGBO LED LIGHTING
Test Type: TYPE C
Temperature: 25°C
Operator: DING LI

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1600L
Distance: 6.500 m
Humidity:
Inspector:

Zonal Lumen (Continue 3)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
108.0-109.0	1.9	0.2	467.5	0.04	99.47
109.0-110.0	1.7	0.2	467.7	0.04	99.51
110.0-111.0	1.6	0.2	467.8	0.04	99.54
111.0-112.0	1.5	0.2	468.0	0.03	99.57
112.0-113.0	1.4	0.1	468.1	0.03	99.60
113.0-114.0	1.3	0.1	468.2	0.03	99.63
114.0-115.0	1.1	0.1	468.4	0.02	99.66
115.0-116.0	1.0	0.1	468.5	0.02	99.68
116.0-117.0	1.0	0.1	468.6	0.02	99.70
117.0-118.0	0.9	0.1	468.6	0.02	99.72
118.0-119.0	0.8	0.1	468.7	0.02	99.73
119.0-120.0	0.8	0.1	468.8	0.02	99.75
120.0-121.0	0.7	0.1	468.9	0.01	99.76
121.0-122.0	0.7	0.1	468.9	0.01	99.78
122.0-123.0	0.7	0.1	469.0	0.01	99.79
123.0-124.0	0.6	0.1	469.0	0.01	99.80
124.0-125.0	0.6	0.1	469.1	0.01	99.81
125.0-126.0	0.6	0.1	469.1	0.01	99.83
126.0-127.0	0.6	0.1	469.2	0.01	99.84
127.0-128.0	0.6	0.0	469.2	0.01	99.85
128.0-129.0	0.5	0.0	469.3	0.01	99.86
129.0-130.0	0.5	0.0	469.3	0.01	99.87
130.0-131.0	0.5	0.0	469.4	0.01	99.87
131.0-132.0	0.5	0.0	469.4	0.01	99.88
132.0-133.0	0.5	0.0	469.5	0.01	99.89
133.0-134.0	0.5	0.0	469.5	0.01	99.90
134.0-135.0	0.5	0.0	469.5	0.01	99.91
135.0-136.0	0.4	0.0	469.6	0.01	99.91
136.0-137.0	0.4	0.0	469.6	0.01	99.92
137.0-138.0	0.4	0.0	469.6	0.01	99.93
138.0-139.0	0.4	0.0	469.7	0.01	99.93
139.0-140.0	0.4	0.0	469.7	0.01	99.94
140.0-141.0	0.4	0.0	469.7	0.01	99.95
141.0-142.0	0.4	0.0	469.7	0.01	99.95
142.0-143.0	0.3	0.0	469.8	0.00	99.96
143.0-144.0	0.3	0.0	469.8	0.00	99.96

C Plane (°):0.0-360.0: 45.0
Test Lab: NINGBO LED LIGHTING
Test Type: TYPE C
Temperature: 25°C
Operator: DING LI

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1600L
Distance: 6.500 m
Humidity:
Inspector:

Zonal Lumen (Continue 4)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
144.0-145.0	0.3	0.0	469.8	0.00	99.96
145.0-146.0	0.3	0.0	469.8	0.00	99.97
146.0-147.0	0.3	0.0	469.8	0.00	99.97
147.0-148.0	0.3	0.0	469.9	0.00	99.98
148.0-149.0	0.2	0.0	469.9	0.00	99.98
149.0-150.0	0.2	0.0	469.9	0.00	99.98
150.0-151.0	0.2	0.0	469.9	0.00	99.98
151.0-152.0	0.2	0.0	469.9	0.00	99.99
152.0-153.0	0.2	0.0	469.9	0.00	99.99
153.0-154.0	0.2	0.0	469.9	0.00	99.99
154.0-155.0	0.2	0.0	469.9	0.00	99.99
155.0-156.0	0.1	0.0	469.9	0.00	99.99
156.0-157.0	0.1	0.0	469.9	0.00	99.99
157.0-158.0	0.1	0.0	469.9	0.00	99.99
158.0-159.0	0.1	0.0	470.0	0.00	100.00
159.0-160.0	0.1	0.0	470.0	0.00	100.00
160.0-161.0	0.1	0.0	470.0	0.00	100.00
161.0-162.0	0.1	0.0	470.0	0.00	100.00
162.0-163.0	0.1	0.0	470.0	0.00	100.00
163.0-164.0	0.1	0.0	470.0	0.00	100.00
164.0-165.0	0.1	0.0	470.0	0.00	100.00
165.0-166.0	0.0	0.0	470.0	0.00	100.00
166.0-167.0	0.0	0.0	470.0	0.00	100.00
167.0-168.0	0.0	0.0	470.0	0.00	100.00
168.0-169.0	0.0	0.0	470.0	0.00	100.00
169.0-170.0	0.0	0.0	470.0	0.00	100.00
170.0-171.0	0.0	0.0	470.0	0.00	100.00
171.0-172.0	0.0	0.0	470.0	0.00	100.00
172.0-173.0	0.0	0.0	470.0	0.00	100.00
173.0-174.0	0.0	0.0	470.0	0.00	100.00
174.0-175.0	0.0	0.0	470.0	0.00	100.00
175.0-176.0	0.0	0.0	470.0	0.00	100.00
176.0-177.0	0.0	0.0	470.0	0.00	100.00
177.0-178.0	0.0	0.0	470.0	0.00	100.00
178.0-179.0	0.0	0.0	470.0	0.00	100.00
179.0-180.0	0.0	0.0	470.0	0.00	100.00

C Plane (°):0.0-360.0: 45.0
Test Lab: NINGBO LED LIGHTING
Test Type: TYPE C
Temperature: 25°C
Operator: DING LI

Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1600L
Distance: 6.500 m
Humidity:
Inspector: