Report No.: Test Time: 2024-03-28 11:46

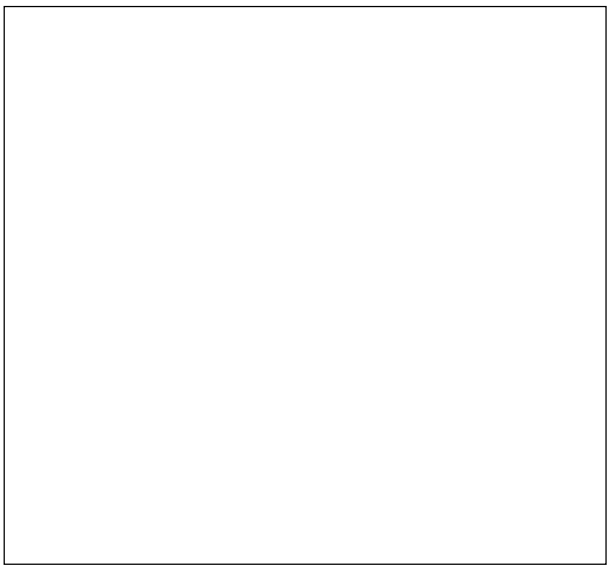
Luminaire Property

Luminaire Manufacturer:
Luminaire Description: HCP-242062-3000K Lamp Catalog: SMD
Lamp Description: 3535 Number of Lamps: 7
Luminous Length (mm): -38 Luminous Width (mm): -38
Voltage: 230.4 V Current: 0.067 A
Power: 6.84 W Power Factor: 0.441

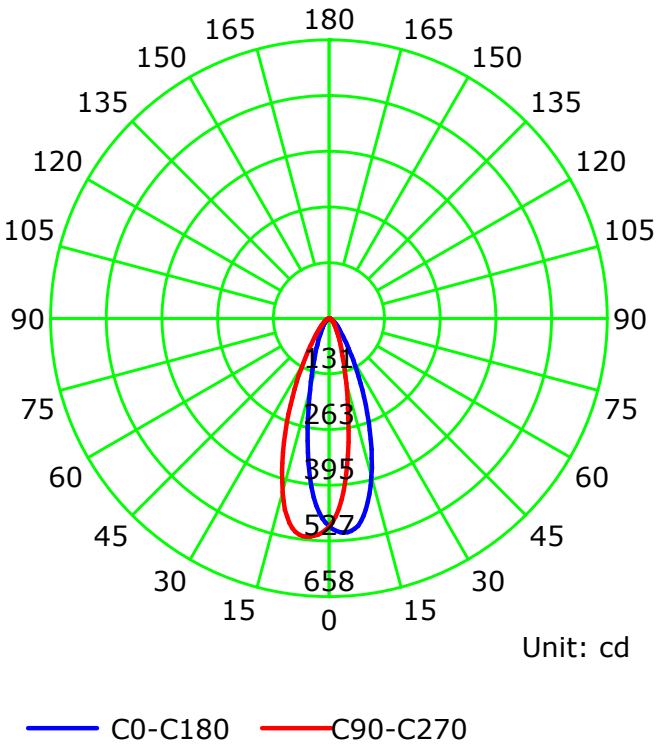
Photometric Results

CIE Class: Direct Total Rated Lamp Lumens: 246.8 lm
Measurement Flux: 246.8 lm Efficiency: 100%
Downward Ratio: 100% Upward Ratio: 0%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 66.2, 65.2, 62.7, 70.5
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 32.9, 32.7, 30.4, 36.1
Luminaire Efficacy Rating (LER): 36.14 Central Intensity: 491.89 cd
Max. Intensity: 527.05 cd Pos of Max. Intensity: H315 V7
S/MH(C0/C180): 0.55 S/MH(C90/C270): 0.57

Picture Of Luminaire



Luminous Intensity Distribution Curve



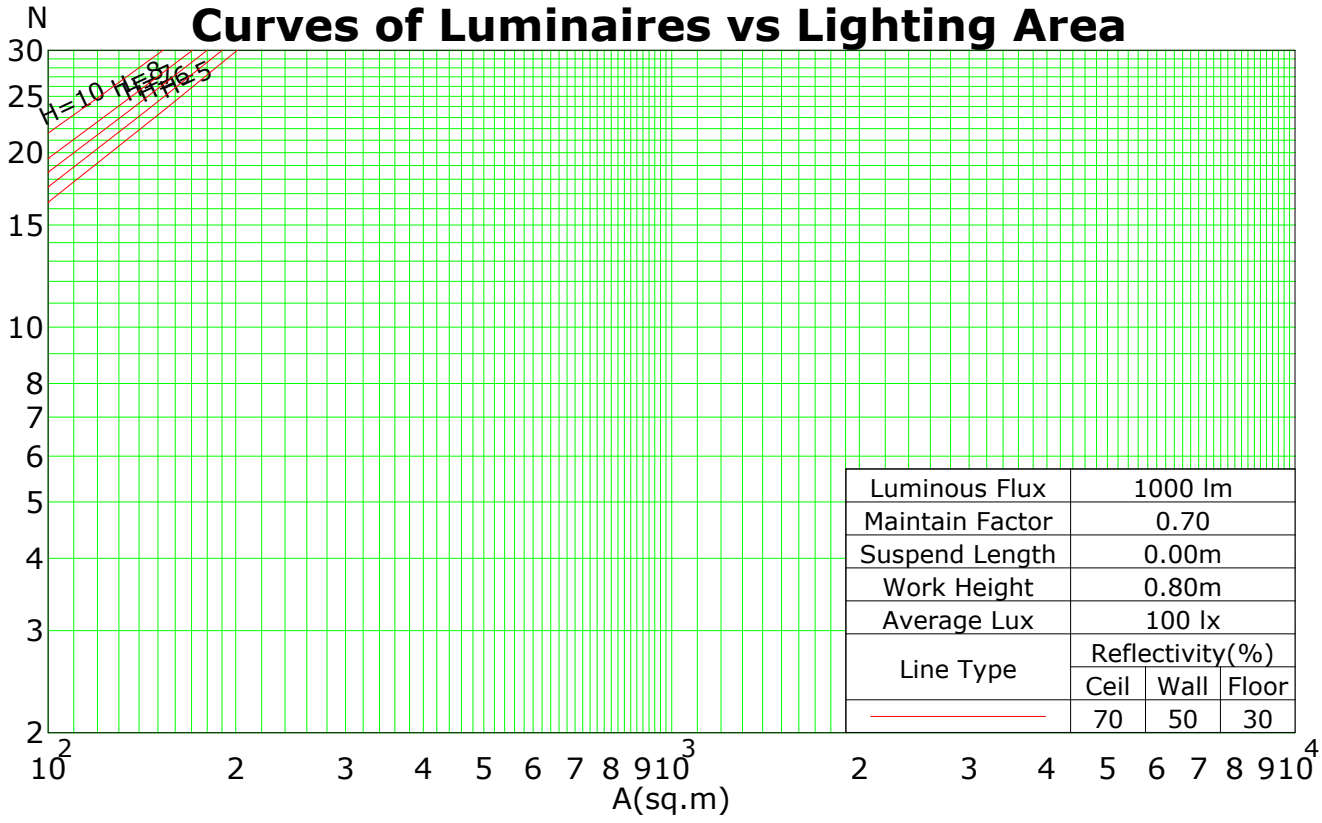
C Plane (°):0.0-360.0: 45.0 Gamma Plane (°):0.0-90.0:1.0
Test Lab: NINGBO LED LIGHTING Test Device: GPM-1600L
Test Type: TYPE C Distance: 6.500 m
Temperature: 25°C Humidity:
Operator: DING LI Inspector:

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	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87
3	103	96	92	88	101	95	91	87	92	89	86	90	87	84	88	85	83	81
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	78	76
5	93	85	79	75	92	84	79	75	82	78	74	81	77	73	79	76	73	71
6	89	80	74	70	87	79	74	70	78	73	70	77	72	69	75	71	69	67
7	85	76	70	66	83	75	70	66	74	69	65	73	68	65	72	68	65	63
8	81	72	66	62	80	71	66	62	70	65	62	69	65	62	68	64	61	60
9	78	68	63	59	77	68	63	59	67	62	59	66	62	59	65	61	58	57
10	74	65	60	56	74	65	60	56	64	59	56	63	59	56	63	58	56	54

Spacing Criteria (0-180): 0.55
Spacing Criteria (90-270): 0.57
Spacing Criteria (Diagonal): 0.59

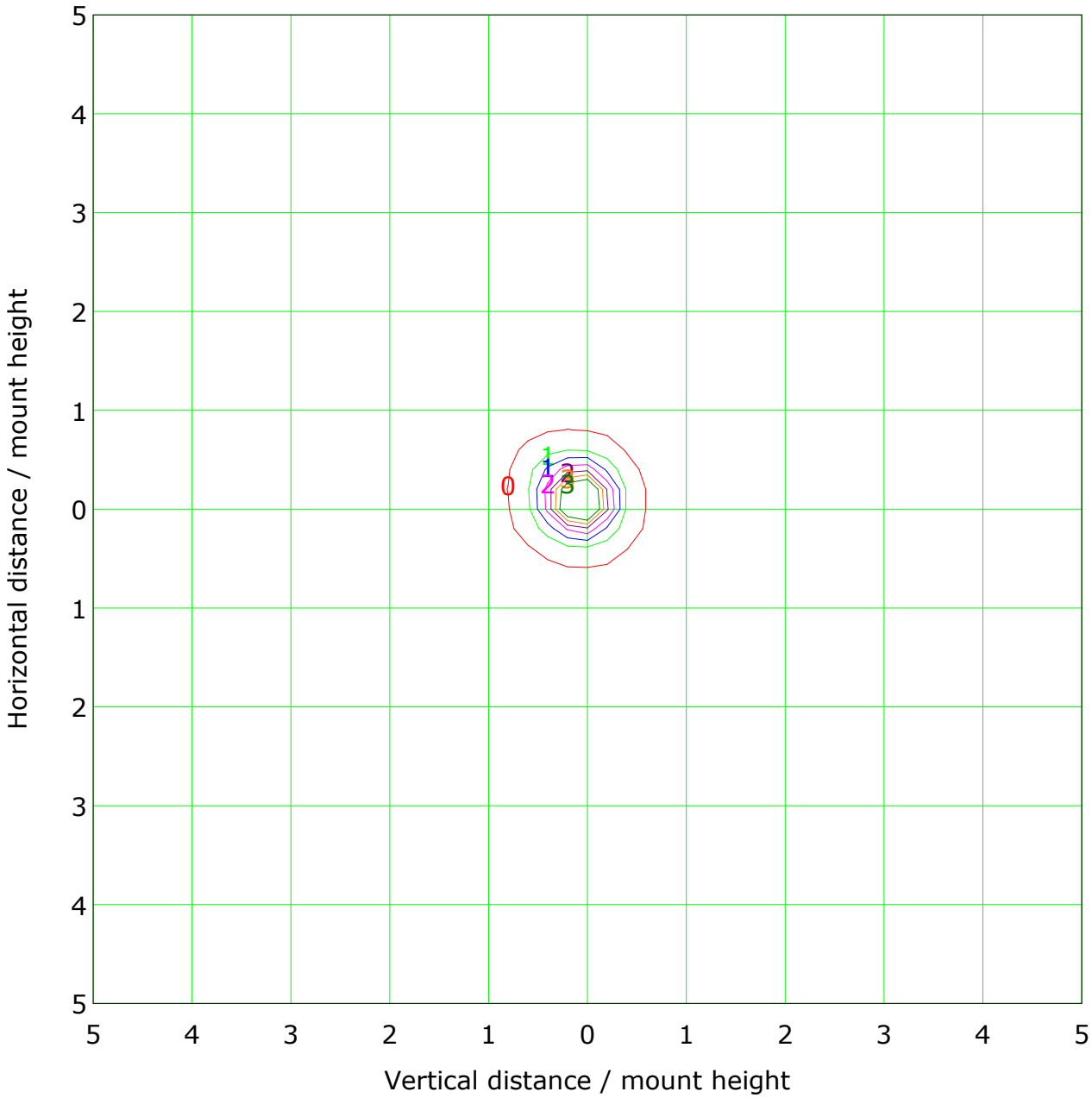
Curves of Luminaires vs Lighting Area



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 (°):0.0-90.0:1.0
Test Device: GPM-1600L
Distance: 6.500 m
Humidity:
Inspector:

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 5.2 lx

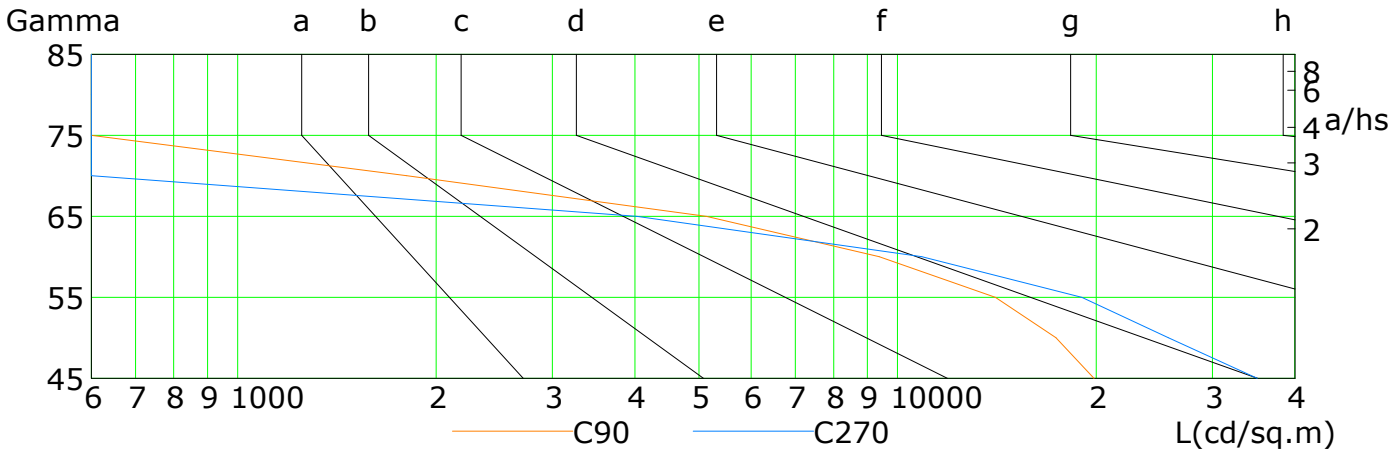
(5%): 0.3 lx	(15%): 0.8 lx
(25%): 1.3 lx	(35%): 1.8 lx
(45%): 2.3 lx	(55%): 2.9 lx
(65%): 3.4 lx	

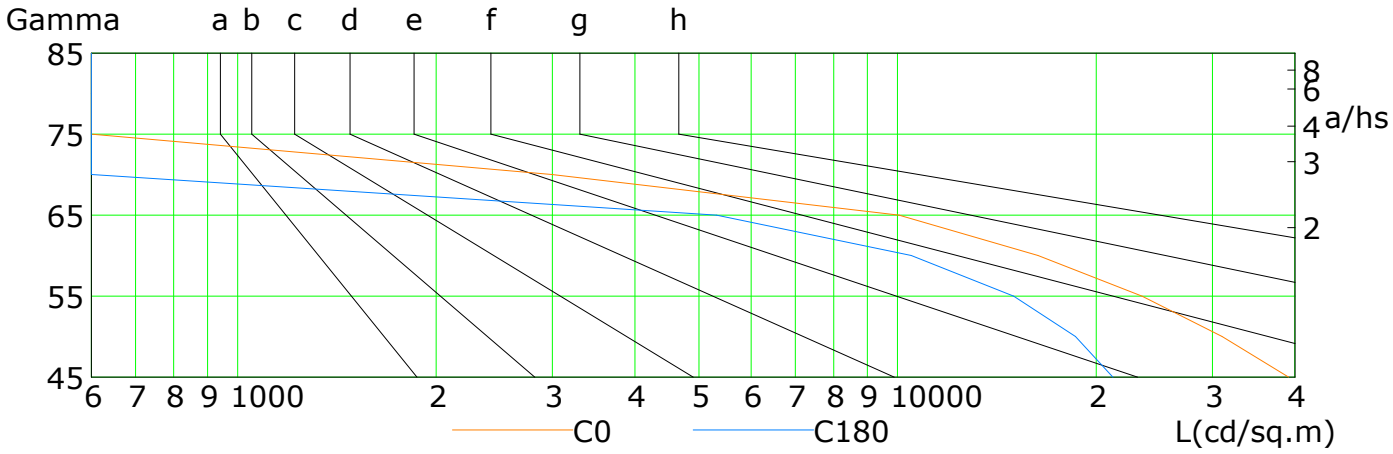
C Plane (°):0.0-360.0: 45.0
Test Lab: NINGBO LED LIGHTING
Test Type: TYPE C
Temperature: 25°C
Operator: DING LI

Gamma Plane (°):0.0-90.0:1.0
Test Device: GPM-1600L
Distance: 6.500 m
Humidity:
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



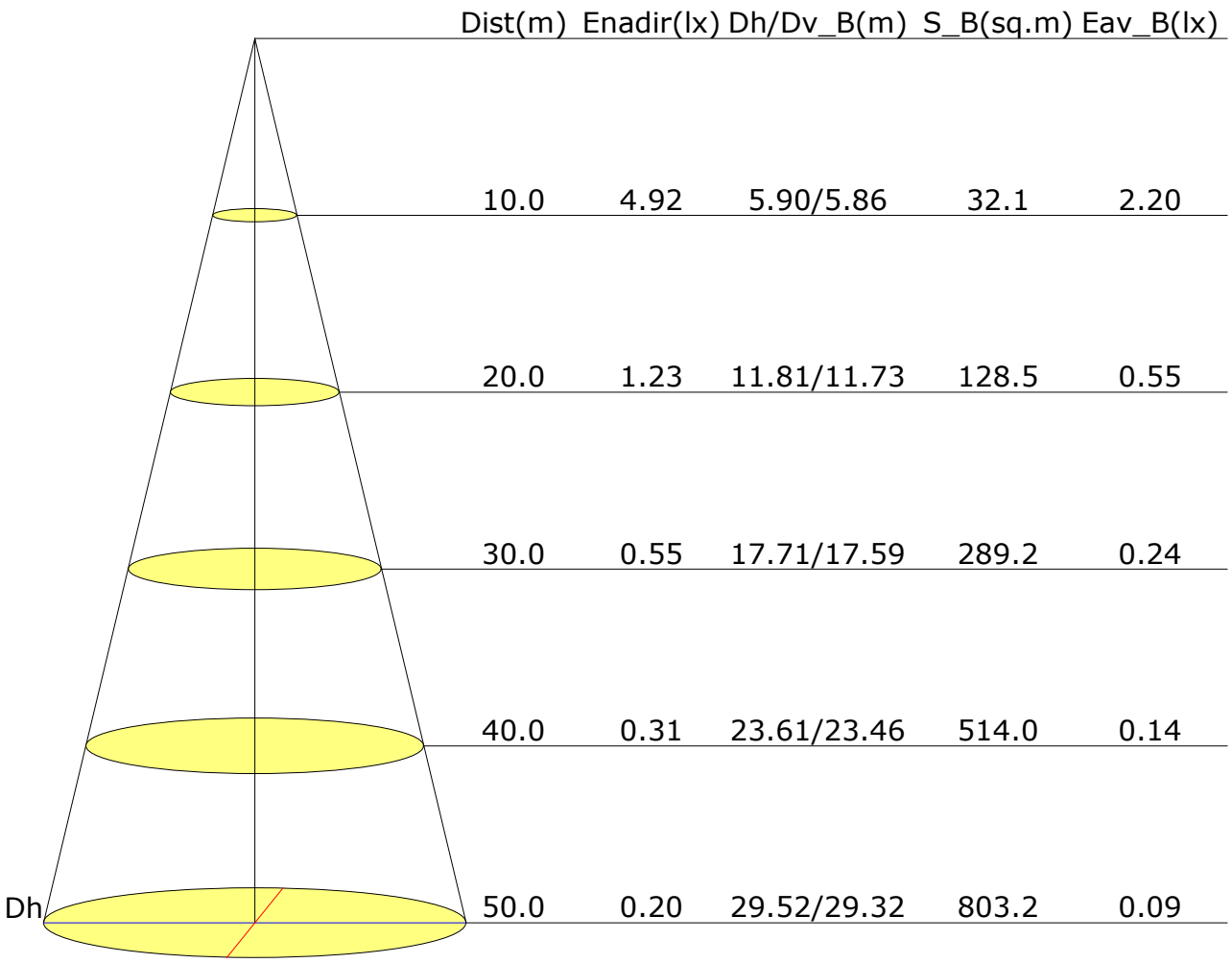


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	39130	31029	23474	16330	10056	2991	0	0	0
C90	19852	17366	14066	9382	5133	1805	0	0	0
C180	21186	18601	14988	10493	5320	0	0	0	0
C270	35090	25707	19031	10881	4027	0	0	0	0

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 (°):0.0-90.0:1.0
Test Device: GPM-1600L
Distance: 6.500 m
Humidity:
Inspector:

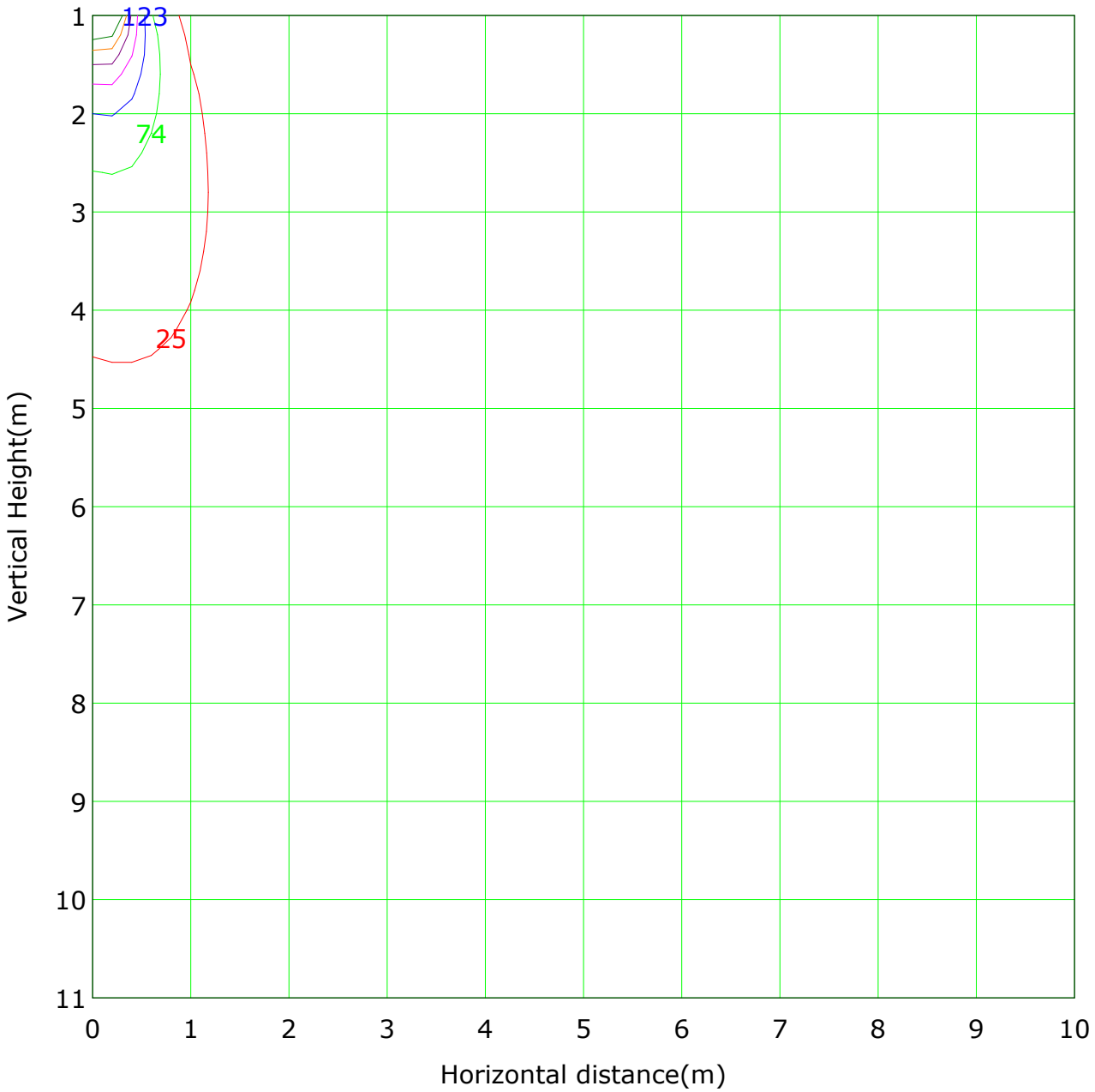
Illuminance at a Distance



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 (°):0.0-90.0:1.0
Test Device: GPM-1600L
Distance: 6.500 m
Humidity:
Inspector:

Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 491.9 lx

(5%): 24.6 lx
(15%): 73.8 lx
(25%): 123.0 lx
(35%): 172.2 lx
(45%): 221.4 lx
(55%): 270.5 lx
(65%): 319.7 lx

C Plane (°):0.0-360.0: 45.0
Gamma Plane (°):0.0-90.0:1.0
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:

UGR Table

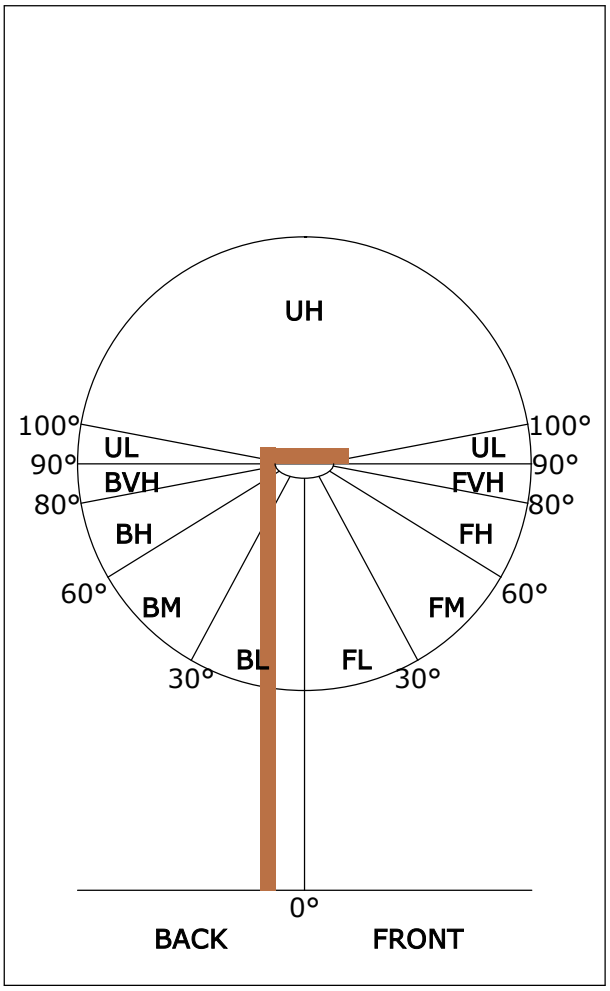
Reflectance: Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	21.7	22.5	21.9	22.7	22.9	20.7	21.6	21.0	21.8	22.0
3H	21.6	22.4	21.9	22.6	22.9	20.6	21.4	20.9	21.6	21.9
4H	21.6	22.3	21.9	22.5	22.8	20.6	21.3	20.9	21.5	21.8
6H	21.5	22.1	21.8	22.4	22.7	20.5	21.1	20.8	21.4	21.7
8H	21.4	22.1	21.8	22.4	22.7	20.4	21.1	20.8	21.4	21.7
12H	21.4	22.0	21.8	22.3	22.6	20.4	21.0	20.8	21.3	21.6
X=4H Y=2H	21.6	22.3	21.9	22.6	22.9	20.8	21.5	21.1	21.7	22.0
3H	21.6	22.2	22.0	22.5	22.8	20.7	21.3	21.0	21.6	21.9
4H	21.5	22.1	21.9	22.4	22.8	20.6	21.1	21.0	21.5	21.8
6H	21.4	21.9	21.8	22.3	22.7	20.5	21.0	20.9	21.3	21.7
8H	21.4	21.8	21.8	22.2	22.6	20.5	20.9	20.9	21.3	21.7
12H	21.3	21.7	21.8	22.1	22.6	20.4	20.8	20.8	21.2	21.6
X=8H Y=4H	21.4	21.8	21.8	22.2	22.6	20.5	20.9	20.9	21.3	21.7
6H	21.3	21.6	21.8	22.1	22.5	20.4	20.7	20.8	21.1	21.6
8H	21.3	21.6	21.7	22.0	22.5	20.3	20.6	20.8	21.1	21.6
12H	21.2	21.5	21.7	21.9	22.4	20.3	20.5	20.8	21.0	21.5
X=12H Y=4H	21.3	21.7	21.8	22.1	22.6	20.4	20.8	20.9	21.2	21.6
6H	21.3	21.6	21.7	22.0	22.5	20.3	20.6	20.8	21.1	21.6
8H	21.2	21.5	21.7	21.9	22.4	20.3	20.5	20.8	21.0	21.5
Variations with the observer position at spacings:										
S=1.0H	+1.5/-2.2					+2.7/-3.7				
S=1.5H	+3.8/-3.9					+4.6/-8.3				
S=2.0H	+5.8/-8.6					+6.4/-16.9				

Calculate in accordance with CIE Pub.117. The table is revised with 247lm (8log(F/F0) = -4.9).

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 (°):0.0-90.0:1.0
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	91	36.7
FL (0°-30°)	66	26.8
FM (30°-60°)	23	9.3
FH (60°-80°)	2	0.6
FVH (80°-90°)	0	0.0
BACK LIGHT	156	63.3
BL (0°-30°)	114	46.1
BM (30°-60°)	41	16.4
BH (60°-80°)	2	0.7
BVH (80°-90°)	0	0.0
UP LIGHT	0	0.0
UL (90°-100°)	0	0.0
UH (100°-180°)	0	0.0
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)	B1 U0 G0
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B1 U0 G0

C Plane (°):0.0-360.0: 45.0
Test Lab: NINGBO LED LIGHTING
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