Report No.: Test Time: 2024-03-28 15:27

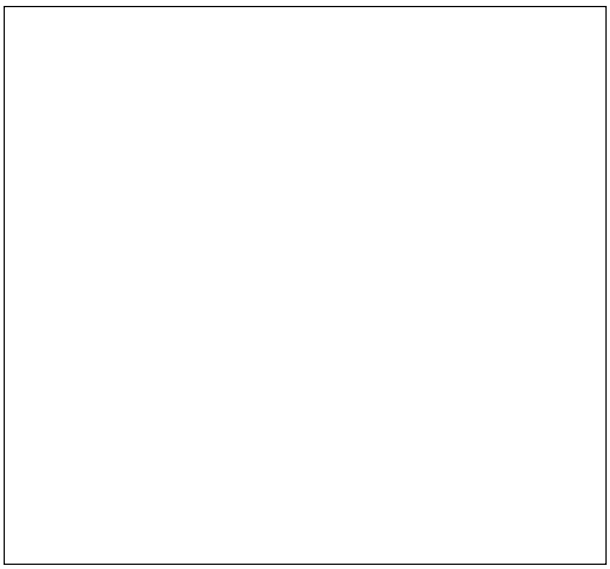
Luminaire Property

Luminaire Manufacturer:
Luminaire Description: HCP-242302-蓝色 Lamp Catalog: SMD
Lamp Description: 3535 Number of Lamps: 14
Luminous Length (mm): 88 Luminous Width (mm): 88
Voltage: 230.5 V Current: 0.134 A
Power: 11.42 W Power Factor: 0.370

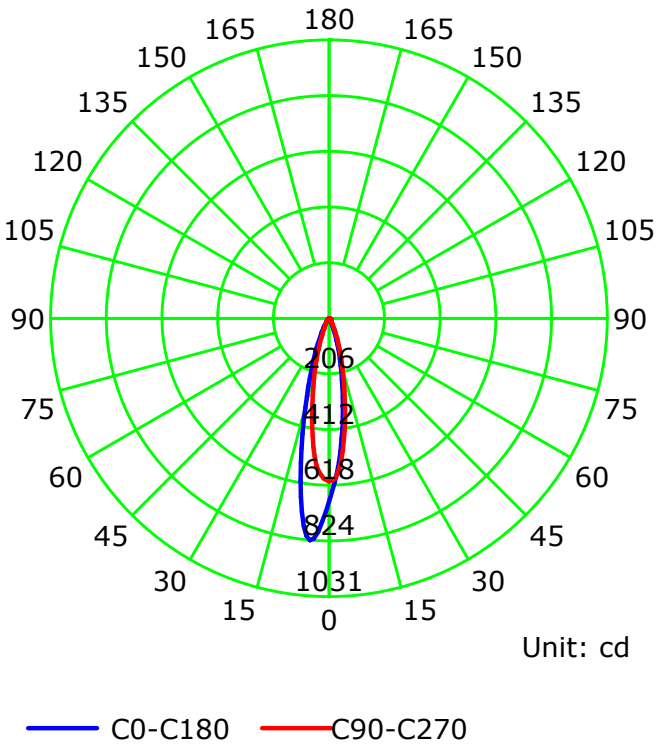
Photometric Results

CIE Class: Direct Total Rated Lamp Lumens: 155.4 lm
Measurement Flux: 155.4 lm Efficiency: 100%
Downward Ratio: 100% Upward Ratio: 0%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 44.9, 47.8, 45.9, 47.9
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 20.4, 23.0, 22.2, 22.7
Luminaire Efficacy Rating (LER): 13.66 Central Intensity: 679.14 cd
Max. Intensity: 824.95 cd Pos of Max. Intensity: H180 V5
S/MH(C0/C180): 0.43 S/MH(C90/C270): 0.39

Picture Of Luminaire



Luminous Intensity Distribution Curve



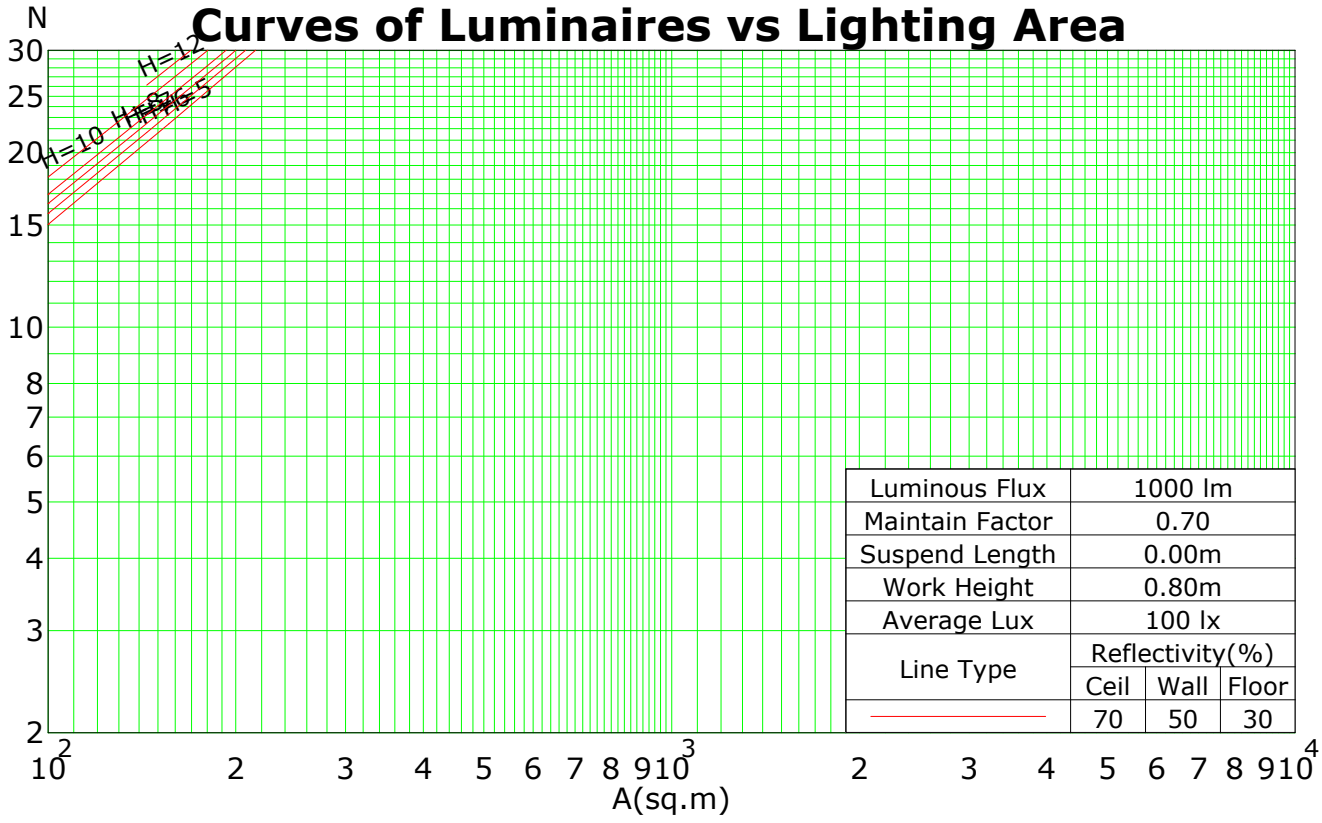
C Plane (°):0.0-360.0: 45.0 Gamma Plane (°):0.0-90.0:1.0
Test Lab: NINGBO LED LIGHTING Test Device: GPM-1600L
Test Type: TYPE C Distance: 6.500 m
Temperature: 25°C Humidity:
Operator: DING LI Inspector:

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	115	112	110	108	112	110	108	107	106	105	104	103	101	100	99	98	98	96
2	110	106	103	101	108	105	102	99	102	99	97	99	97	95	96	95	93	92
3	106	101	97	94	105	100	96	94	97	95	92	95	93	91	93	91	89	88
4	103	97	92	89	101	96	92	89	94	90	88	92	89	87	90	88	86	84
5	99	93	88	85	98	92	88	84	90	87	84	89	86	83	87	85	82	81
6	96	89	84	81	95	88	84	81	87	83	80	86	82	80	85	82	79	78
7	93	86	81	78	92	85	81	78	84	80	77	83	80	77	82	79	77	76
8	90	83	78	75	89	82	78	75	81	77	75	80	77	74	80	76	74	73
9	87	80	76	73	86	80	75	72	79	75	72	78	75	72	77	74	72	71
10	85	77	73	70	84	77	73	70	76	73	70	76	72	70	75	72	70	69

Spacing Criteria (0-180): 0.43
Spacing Criteria (90-270): 0.39
Spacing Criteria (Diagonal): 0.41

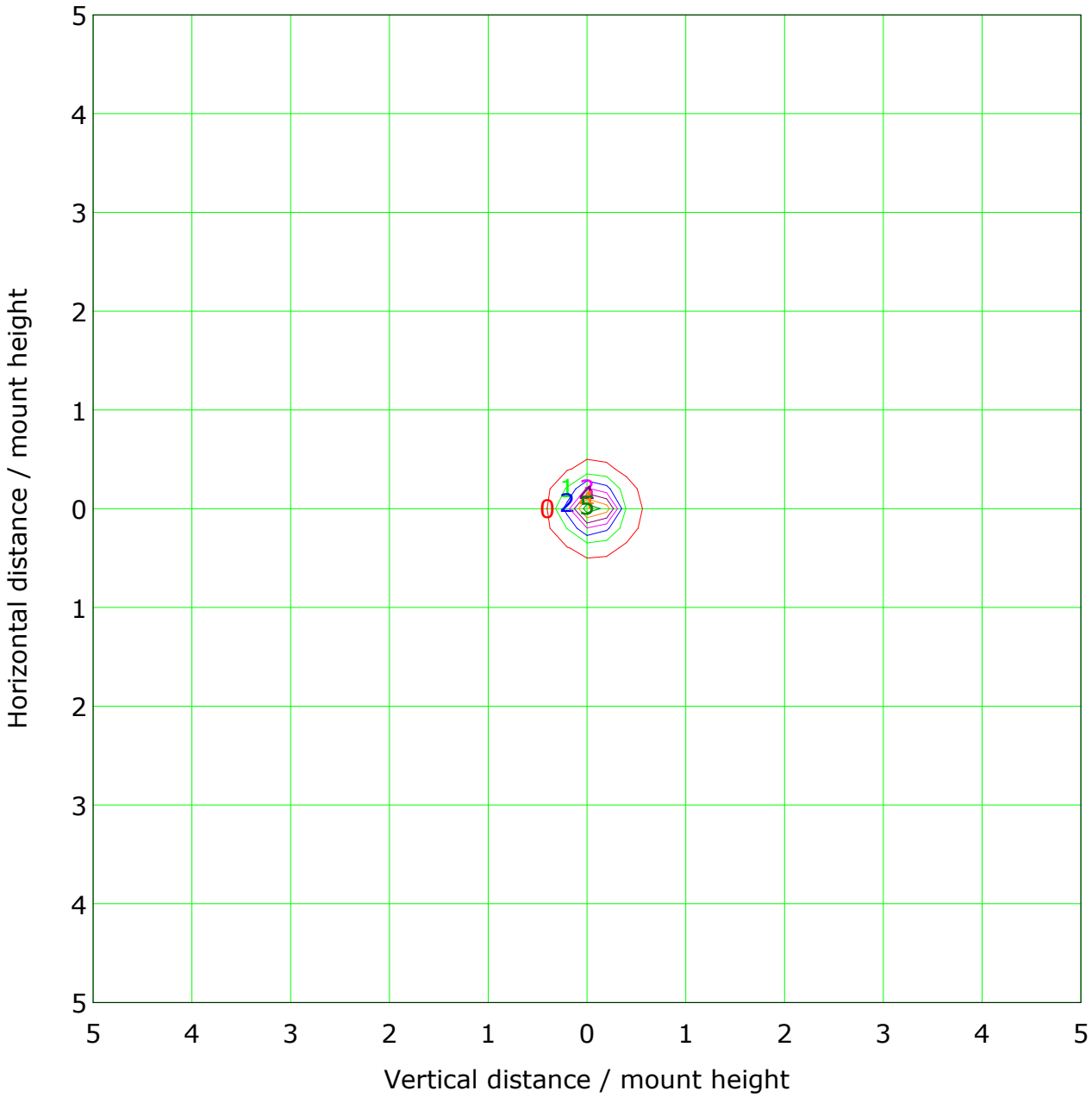
Curves of Luminaires vs Lighting Area



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



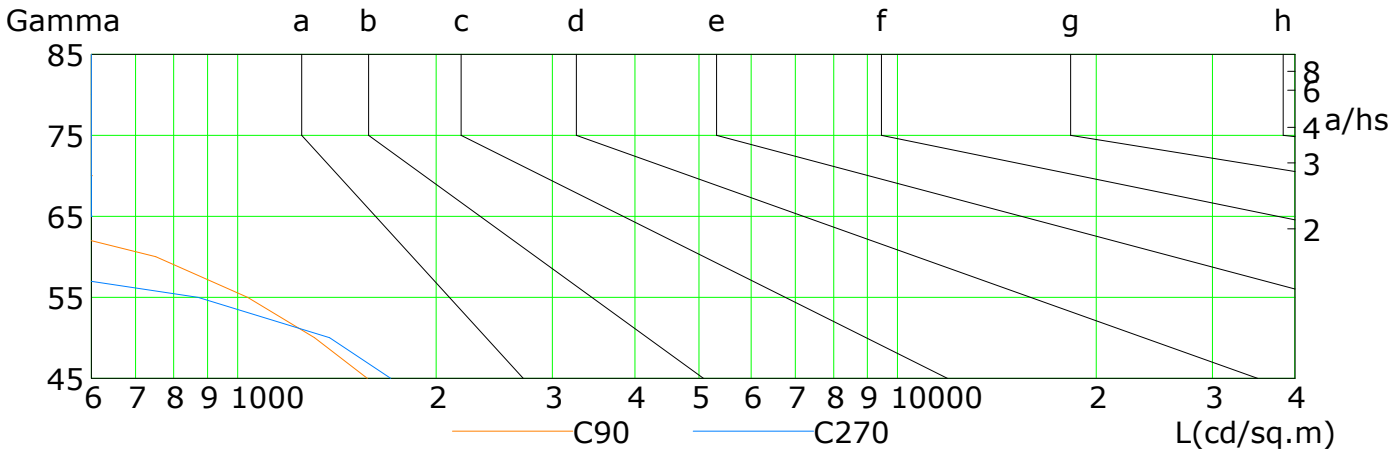
Mounting Height: 10.0m Max Lux(100%): 8.2 lx

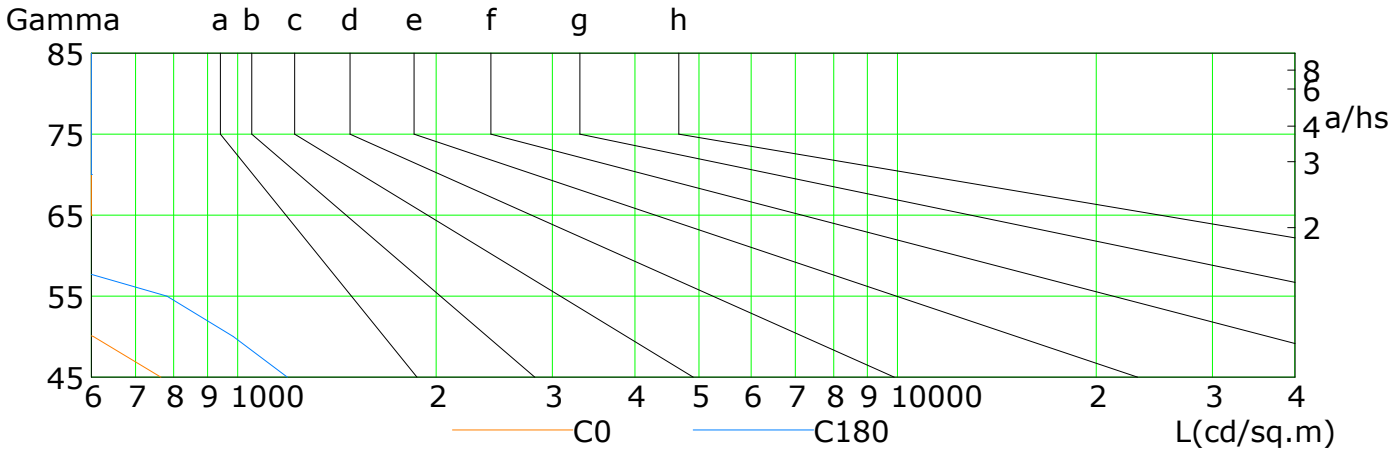
(5%): 0.4 lx
(15%): 1.2 lx
(25%): 2.0 lx
(35%): 2.9 lx
(45%): 3.7 lx
(55%): 4.5 lx
(65%): 5.3 lx

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:

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



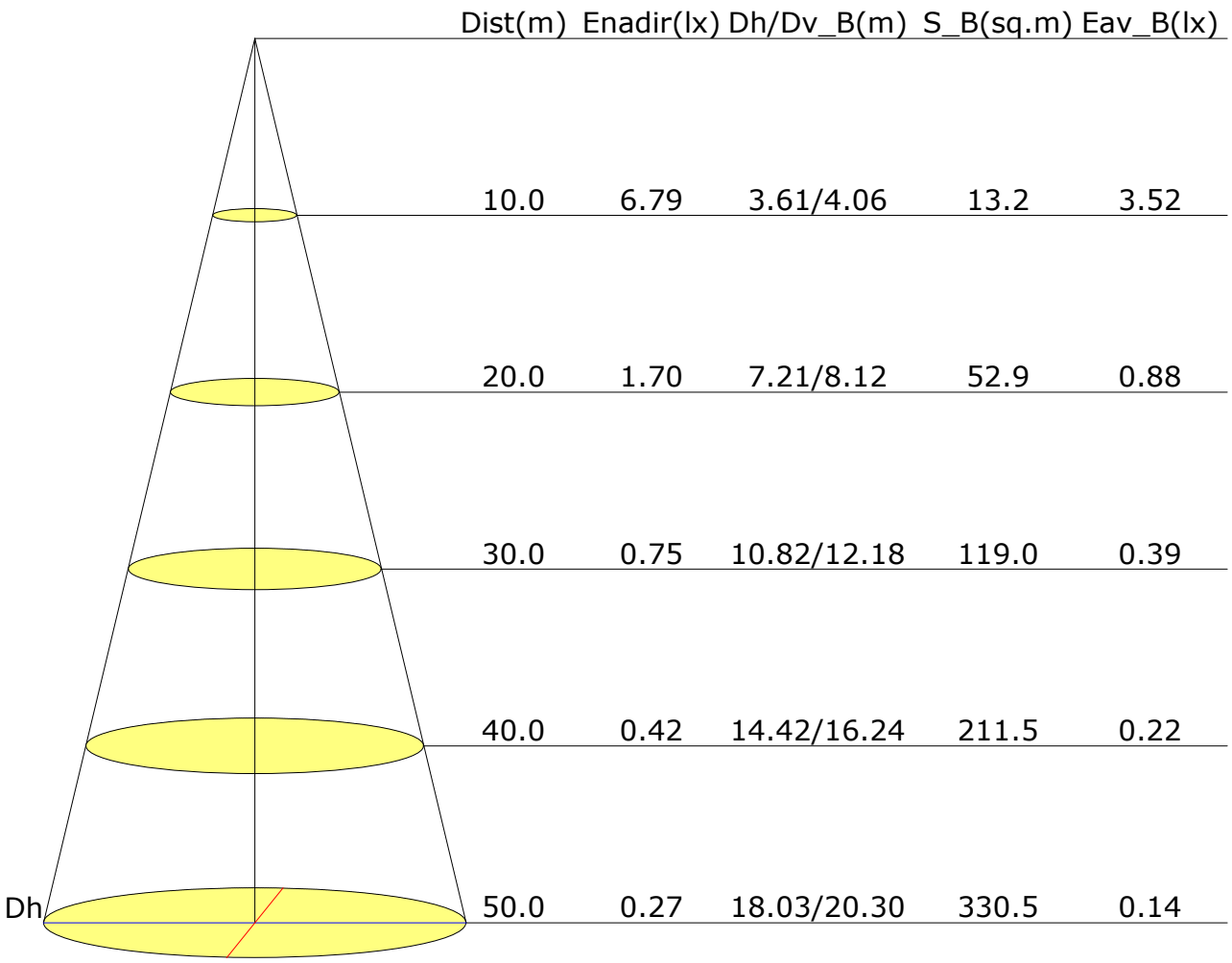


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	765	605	423	194	0	0	0	0	0
C90	1572	1308	1036	752	431	0	0	0	0
C180	1189	984	781	480	70	0	0	0	0
C270	1706	1378	871	343	0	0	0	0	0

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



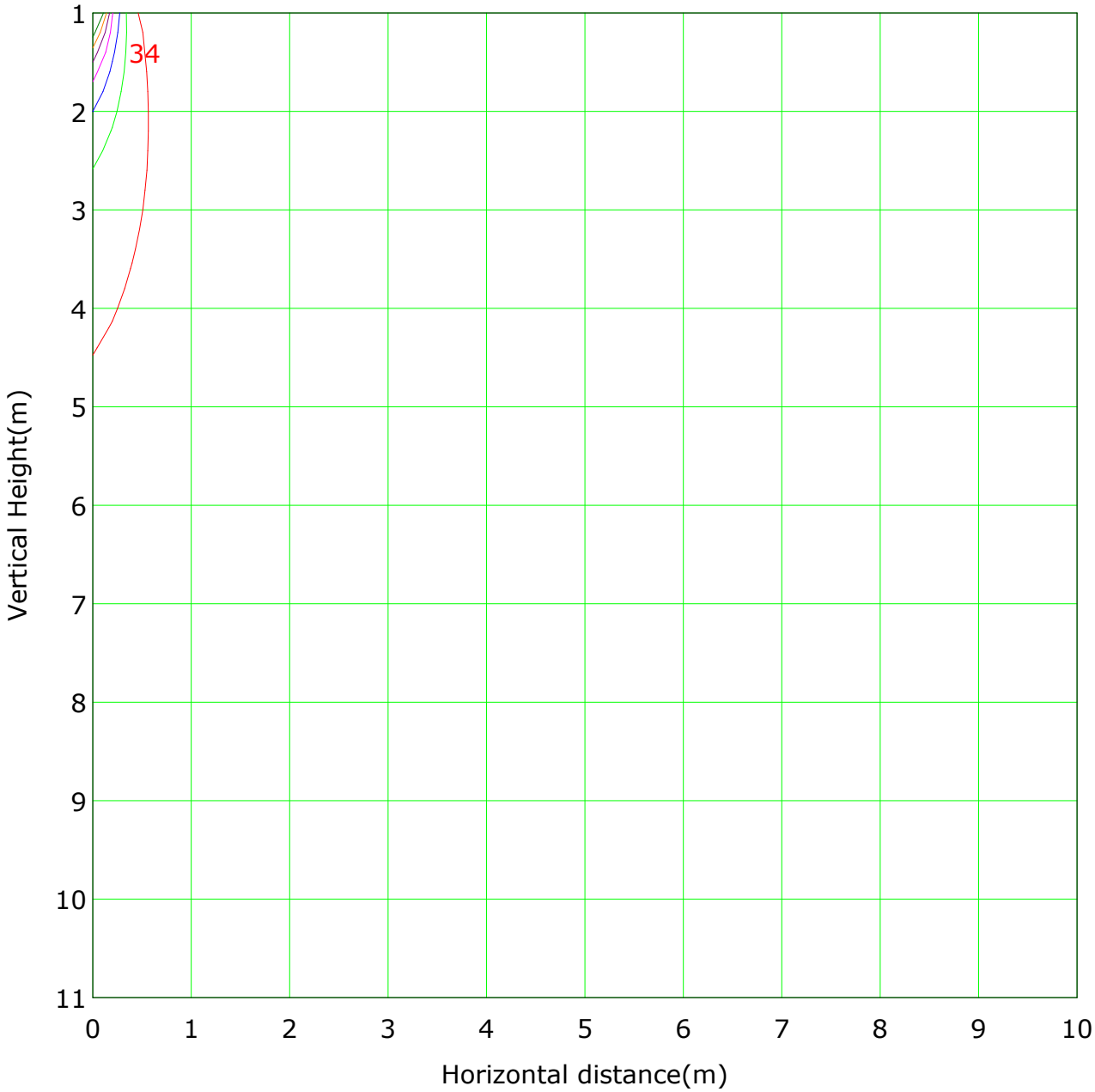
Dist(m)	Enadir(lx)	Dh/Dv_B(m)	S_B(sq.m)	Eav_B(lx)
10.0	6.79	3.61/4.06	13.2	3.52
20.0	1.70	7.21/8.12	52.9	0.88
30.0	0.75	10.82/12.18	119.0	0.39
40.0	0.42	14.42/16.24	211.5	0.22
50.0	0.27	18.03/20.30	330.5	0.14

Beam Angle(B): H20.4 V23.0 Field Angle(F): H44.9 V47.8

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: 679.1 lx

(5%): 34.0 lx
(15%): 101.9 lx
(25%): 169.8 lx
(35%): 237.7 lx
(45%): 305.6 lx
(55%): 373.5 lx
(65%): 441.4 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

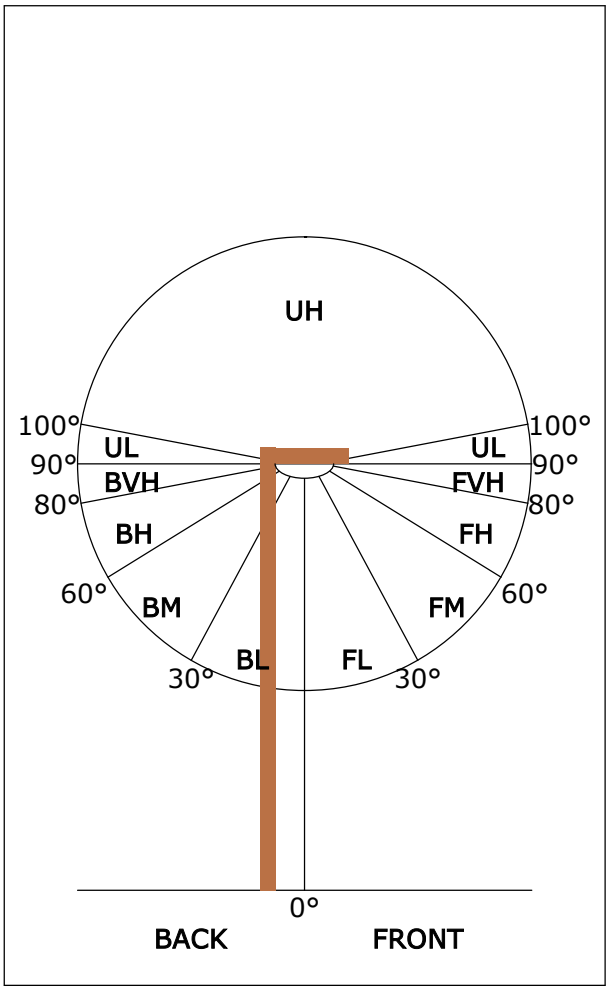
Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	2.4	3.1	2.7	3.3	3.5	5.6	6.3	5.9	6.5	6.7
3H	2.3	2.9	2.6	3.1	3.4	5.6	6.2	5.8	6.4	6.6
4H	2.2	2.8	2.5	3.0	3.3	5.5	6.1	5.8	6.3	6.6
6H	2.1	2.7	2.5	3.0	3.2	5.4	5.9	5.7	6.2	6.5
8H	2.1	2.6	2.4	2.9	3.2	5.4	5.9	5.7	6.2	6.5
12H	2.1	2.6	2.4	2.9	3.2	5.3	5.8	5.7	6.1	6.4
X=4H Y=2H	2.6	3.2	2.9	3.4	3.7	5.6	6.1	5.9	6.4	6.6
3H	2.5	3.0	2.8	3.3	3.6	5.5	6.0	5.8	6.3	6.6
4H	2.4	2.8	2.8	3.2	3.5	5.4	5.8	5.8	6.2	6.5
6H	2.3	2.7	2.7	3.0	3.4	5.3	5.7	5.7	6.0	6.4
8H	2.2	2.6	2.7	3.0	3.4	5.2	5.6	5.7	6.0	6.4
12H	2.2	2.5	2.6	2.9	3.4	5.2	5.5	5.6	5.9	6.4
X=8H Y=4H	2.2	2.6	2.7	3.0	3.4	5.2	5.6	5.7	6.0	6.4
6H	2.1	2.4	2.6	2.9	3.3	5.1	5.4	5.6	5.9	6.3
8H	2.1	2.3	2.6	2.8	3.3	5.1	5.4	5.6	5.8	6.3
12H	2.0	2.3	2.5	2.7	3.2	5.0	5.3	5.5	5.7	6.2
X=12H Y=4H	2.2	2.5	2.6	2.9	3.4	5.2	5.5	5.6	5.9	6.4
6H	2.1	2.3	2.6	2.8	3.3	5.1	5.4	5.6	5.8	6.3
8H	2.0	2.3	2.5	2.7	3.2	5.0	5.3	5.5	5.7	6.2
Variations with the observer position at spacings:										
S=1.0H	+2.0/-1.7					+1.7/-1.5				
S=1.5H	+3.8/-11.6					+3.7/-10.8				
S=2.0H	+5.8/-1.$					+5.7/-1.$				

Calculate in accordance with CIE Pub.117. The table is revised with 155lm (8log(F/F0) = -6.5).

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	77	49.6
FL (0°-30°)	68	44.1
FM (30°-60°)	8	5.2
FH (60°-80°)	0	0.3
FVH (80°-90°)	0	0.0
BACK LIGHT	78	50.4
BL (0°-30°)	70	44.9
BM (30°-60°)	8	5.4
BH (60°-80°)	0	0.1
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)	B0 U0 G0
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B0 U0 G0

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: