Report No.: 001 Test Time: 2022-12-09 12:45

Luminaire Property

Luminaire Manufacturer:
Luminaire Category: Outdoor lighting
Luminaire Description: HCP-247243-45
Lamp Catalog: SMD
Voltage: 24.0V
Current: 0.980A
Power: 23.52W
Power Factor: 0.000

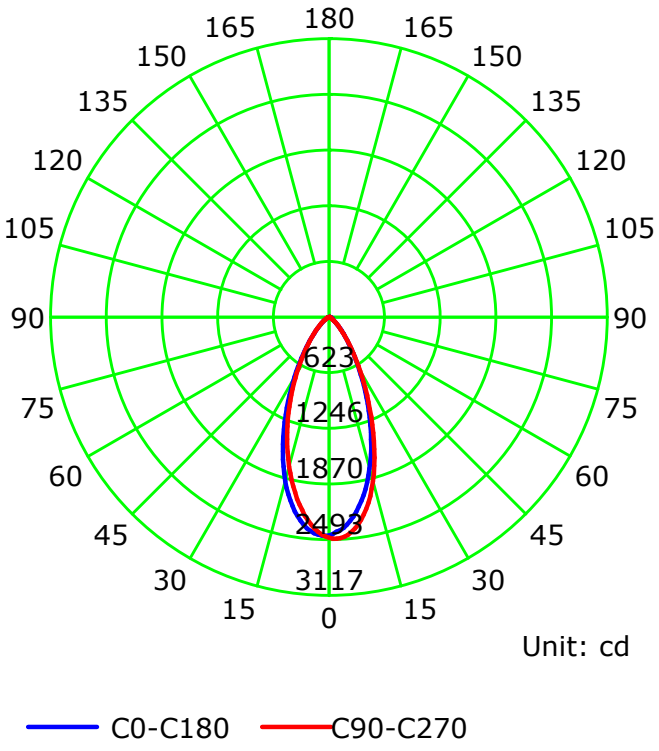
Photometric Results

CIE Class: Direct
Total Rated Lamp Lumens: 1739.8 lm
Measurement Flux: 1739.8 lm
Efficiency: 100%
Downward Ratio: 100%
Upward Ratio: 0%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 84.1, 83.7, 83.9, 83.8
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 45.5, 44.6, 45.2, 44.9
Luminaire Efficacy Rating (LER): 74.02
Central Intensity: 2444.1 cd
Max. Intensity: 2493.73 cd
Pos of Max. Intensity: H135 V2
S/MH(C0/C180): 0.72
S/MH(C90/C270): 0.70

Picture Of Luminaire



Luminous Intensity Distribution Curve



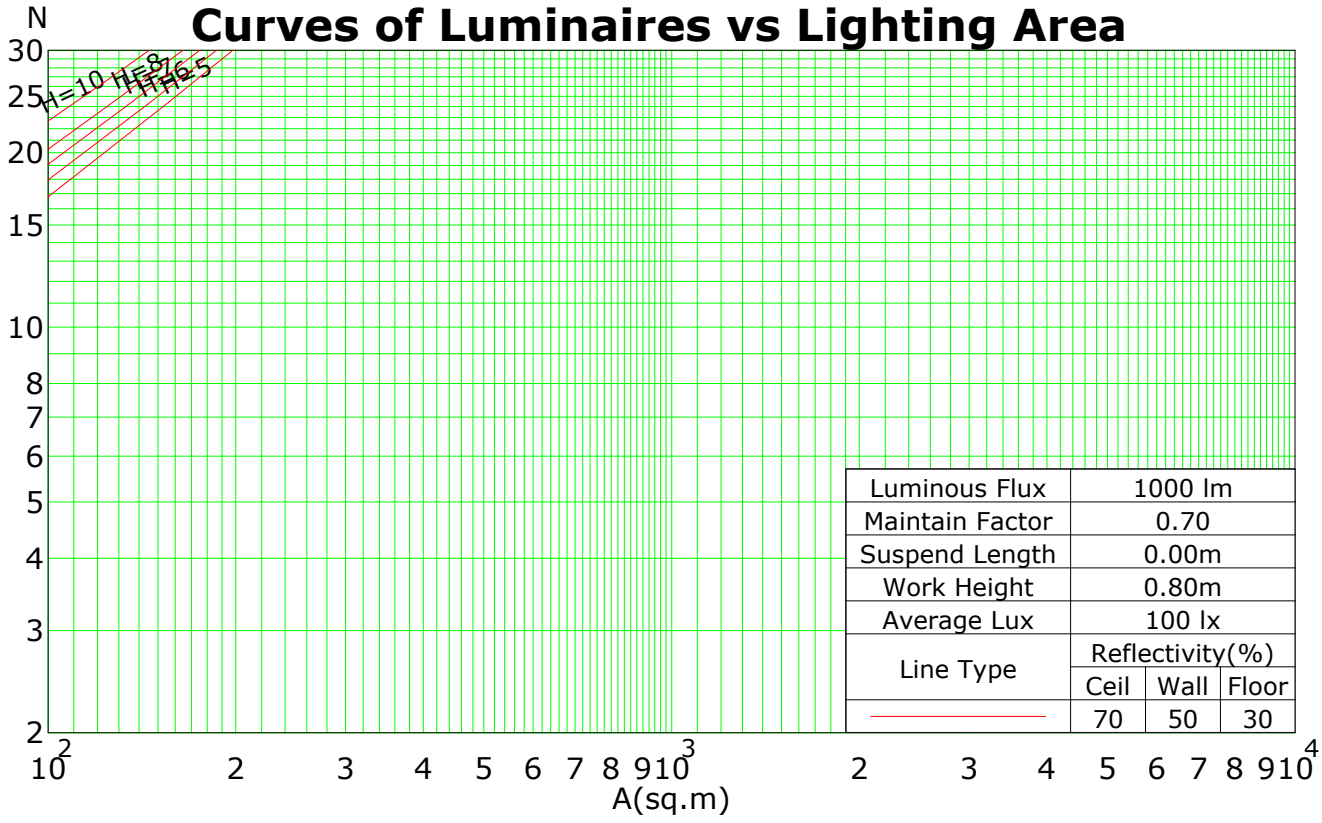
C Plane (°):0.0-360.0: 45.0
Gamma Plane (°):0.0-90.0:1.0
Test Lab: NINGBO LED LIGHTING
Test Device: GPM-1600L
Test Type: TYPE C
Distance: 6.500 m
Temperature: 25°C
Humidity:
Operator: DING LI
Inspector:

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	113	110	108	106	111	108	106	104	104	102	101	101	99	98	97	96	95	93
2	108	102	98	95	105	101	97	94	98	94	92	95	92	90	92	90	88	86
3	102	95	90	86	100	94	89	85	91	87	84	89	86	83	87	84	81	80
4	97	89	83	79	95	88	83	78	86	81	78	84	80	77	82	78	76	74
5	92	83	77	73	90	82	77	73	80	76	72	79	75	71	77	74	71	69
6	87	78	72	68	86	77	72	67	76	71	67	74	70	66	73	69	66	65
7	83	73	67	63	82	73	67	63	72	66	63	70	66	62	69	65	62	61
8	79	69	63	59	78	69	63	59	68	62	59	67	62	59	66	61	58	57
9	75	66	60	56	74	65	59	56	64	59	55	63	59	55	62	58	55	54
10	72	62	56	53	71	62	56	52	61	56	52	60	55	52	59	55	52	51

Spacing Criteria (0-180): 0.72
Spacing Criteria (90-270): 0.70
Spacing Criteria (Diagonal): 0.74

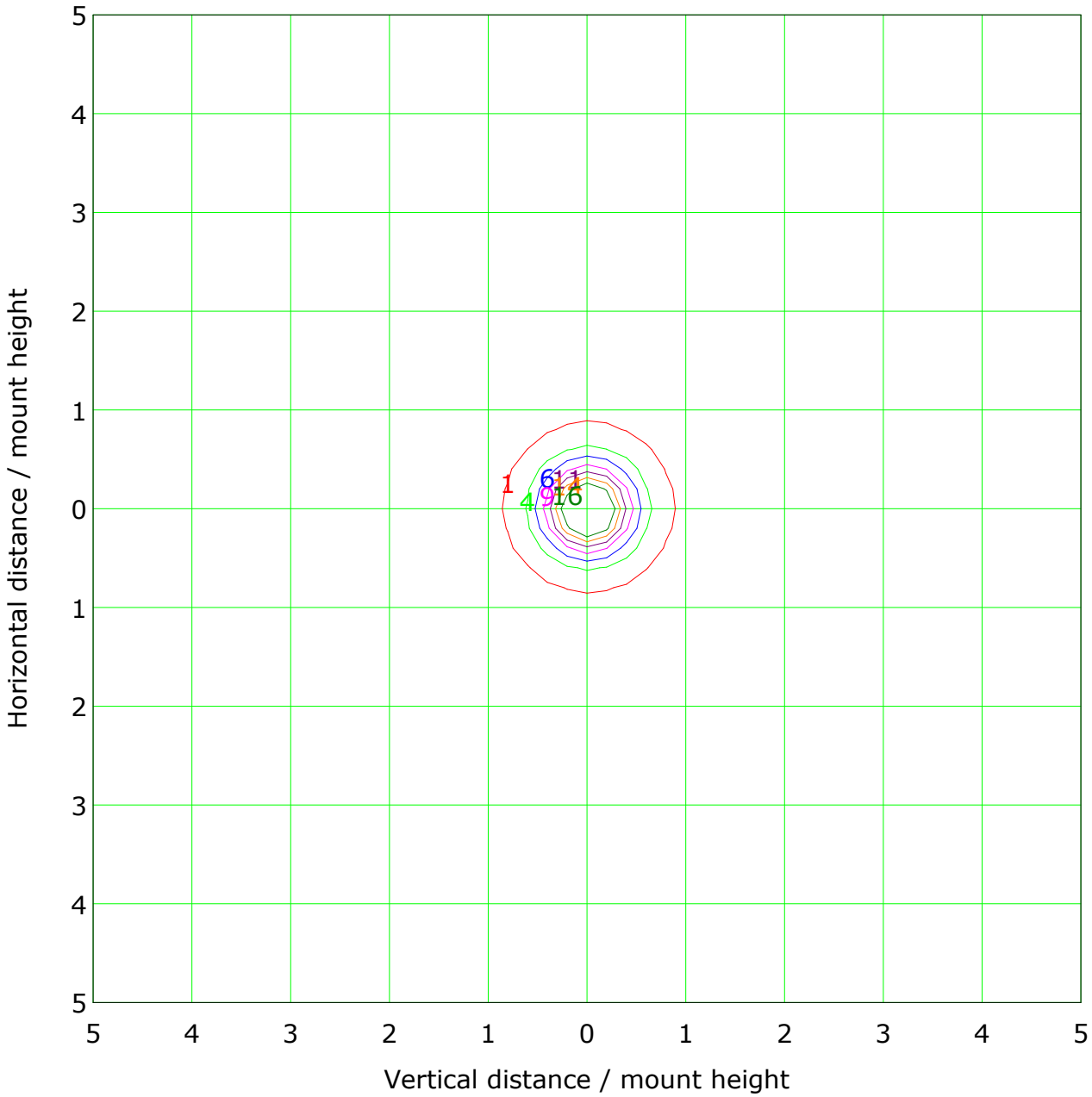
Curves of Luminaires vs Lighting Area



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%): 24.9 lx

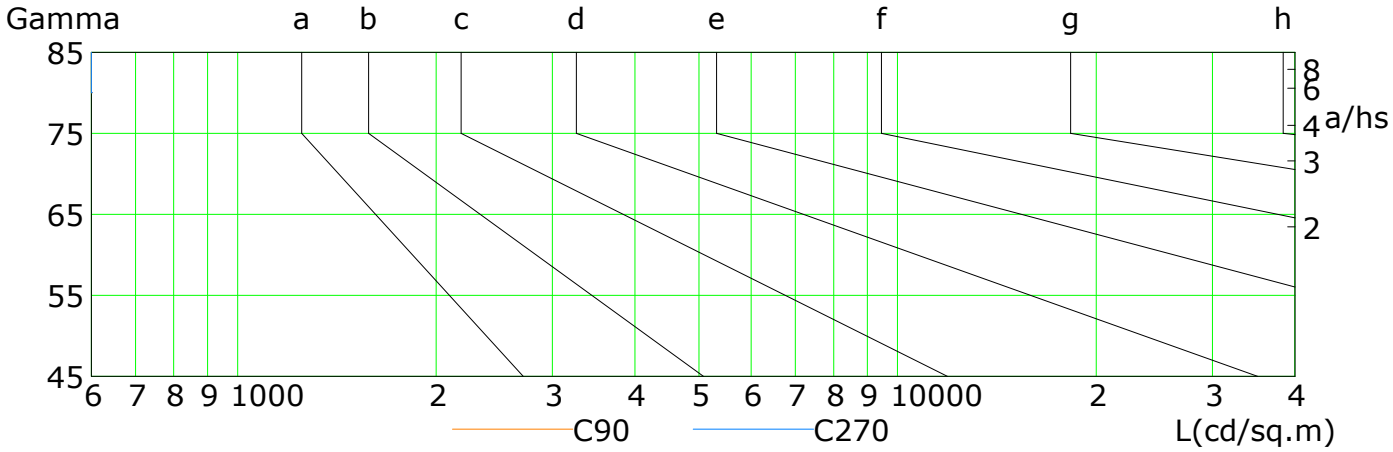
(5%): 1.2 lx	(15%): 3.7 lx
(25%): 6.2 lx	(35%): 8.7 lx
(45%): 11.2 lx	(55%): 13.7 lx
(65%): 16.2 lx	

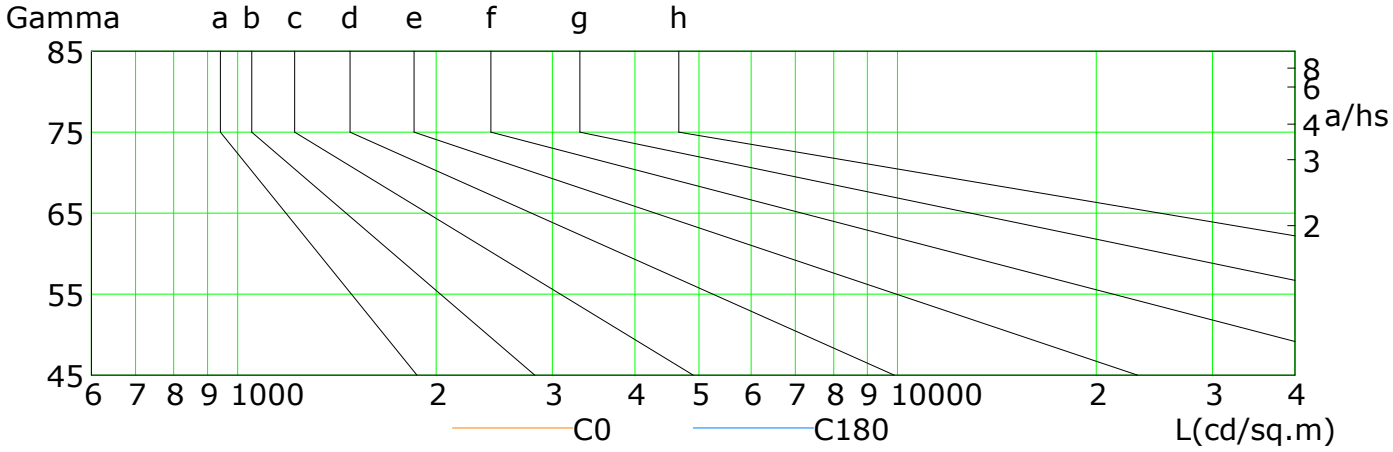
C Plane (°):0.0-360.0: 45.0
Test Lab: NINGBO LED LIGHTING
Test Type: TYPE C
Temperature: 25°C
Operator: DING LI

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



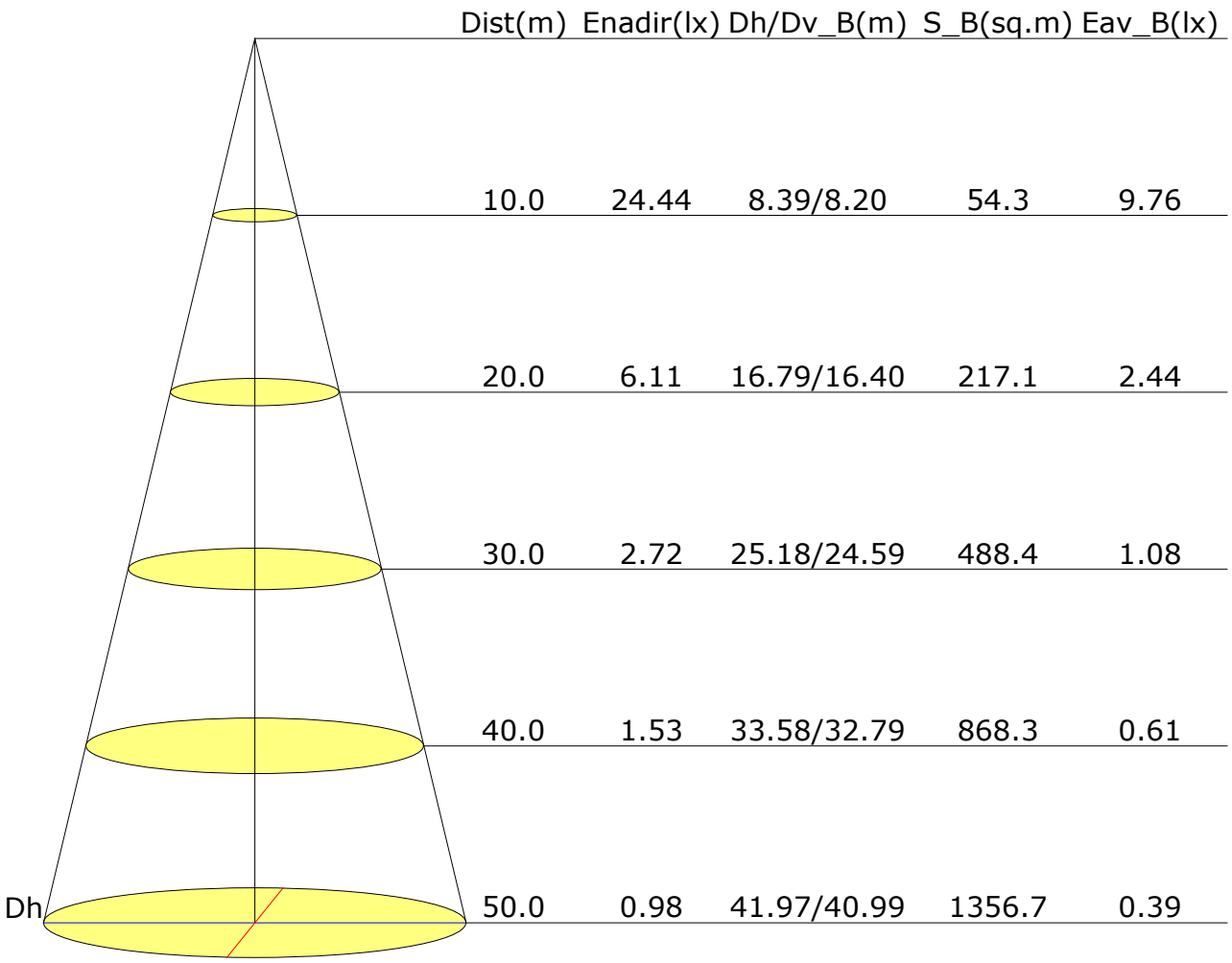


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	170	102	63	40	24	13	7	3	0
C90	167	99	60	35	19	8	1	0	0
C180	198	120	73	46	29	17	9	5	0
C270	198	122	75	45	26	13	4	0	0

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:

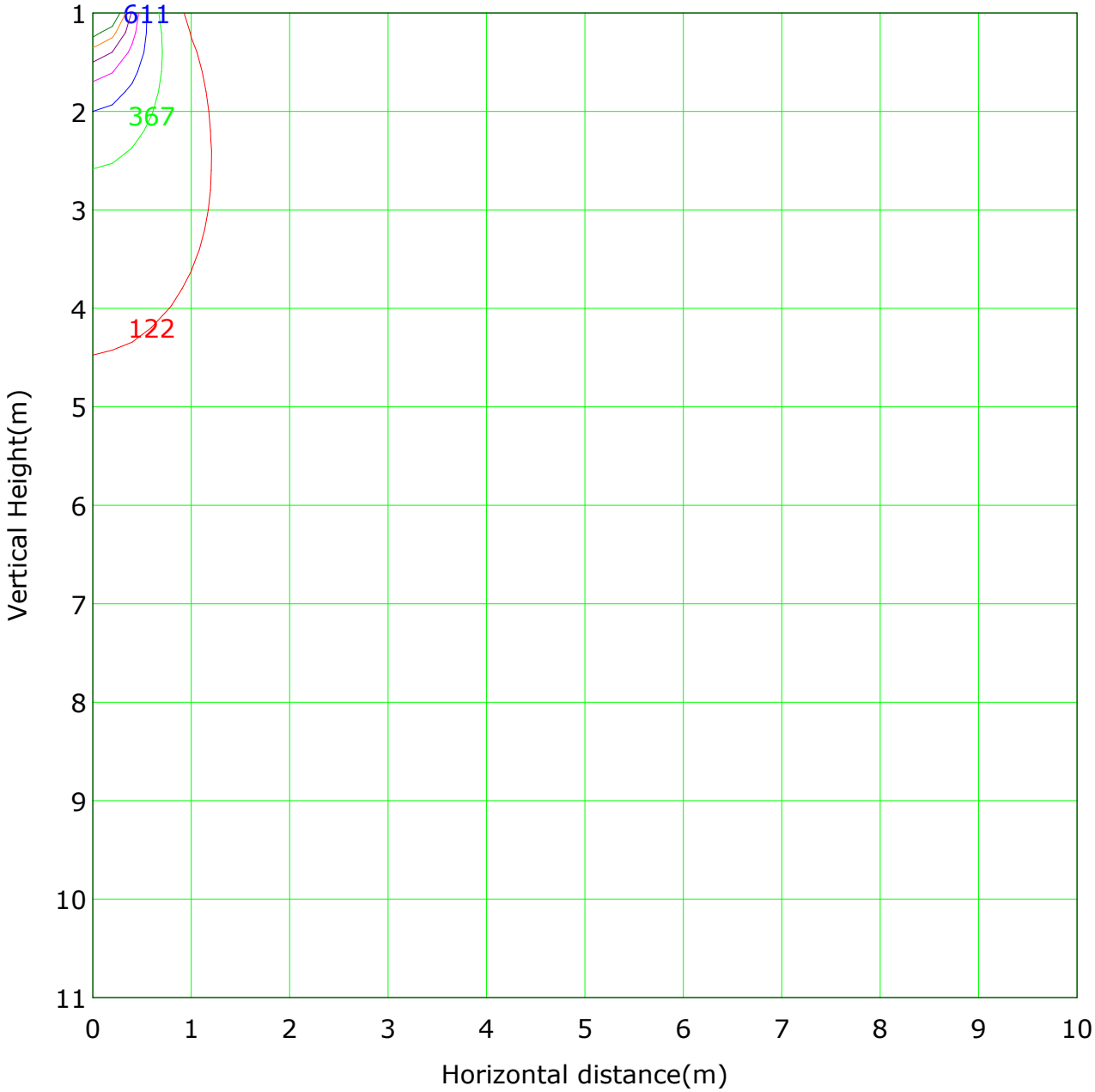
Illuminance at a Distance



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

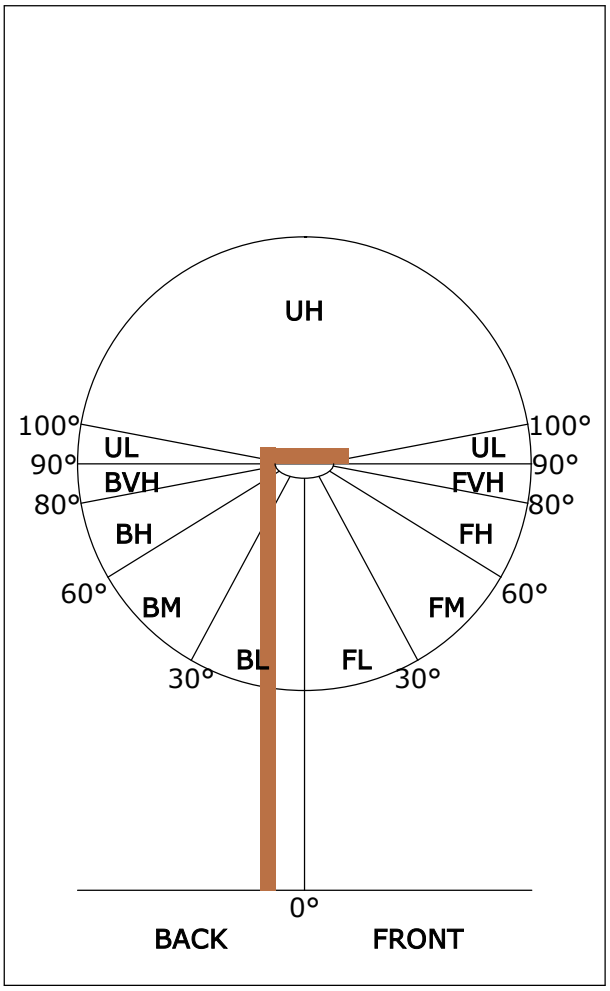


Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 2444.1 lx

(5%): 122.2 lx
(15%): 366.6 lx
(25%): 611.0 lx
(35%): 855.4 lx
(45%):1099.8 lx
(55%):1344.3 lx
(65%):1588.7 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:

FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM



ZONE	LUMENS	% LAMP LUMENS
FORWARD LIGHT	867	49.8
FL (0°-30°)	611	35.1
FM (30°-60°)	243	14.0
FH (60°-80°)	13	0.7
FVH (80°-90°)	0	0.0
BACK LIGHT	873	50.2
BL (0°-30°)	594	34.1
BM (30°-60°)	263	15.1
BH (60°-80°)	16	0.9
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)	B2 U0 G0
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B2 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: