Report No.: 001 Test Time: 2022-12-09 11:21

Luminaire Property

Luminaire Manufacturer:
Luminaire Category: Outdoor lighting
Luminaire Description: HCP-247240-45-B
Lamp Catalog: SMD
Voltage: 24.0V
Current: 0.502A
Power: 12.048W
Power Factor: 0.000

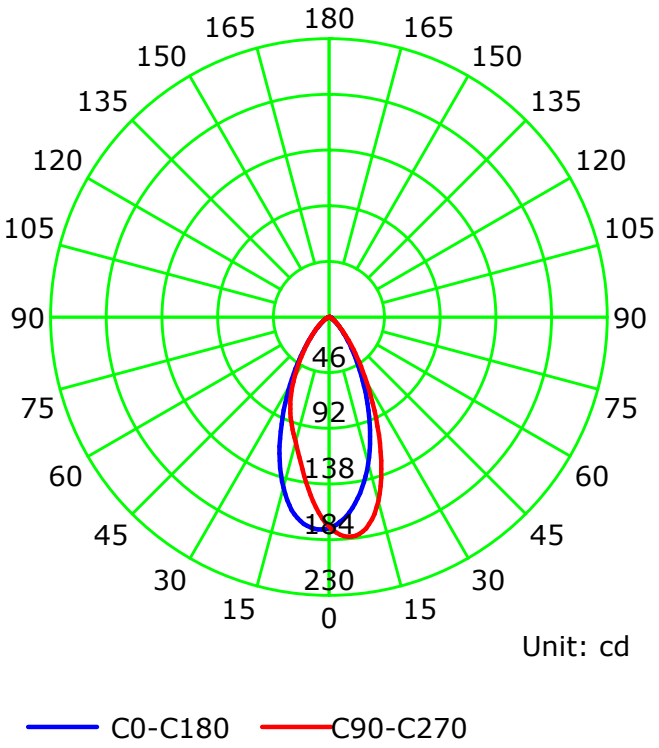
Photometric Results

CIE Class: Direct
Total Rated Lamp Lumens: 137.7 lm
Measurement Flux: 137.7 lm
Efficiency: 100%
Downward Ratio: 100%
Upward Ratio: 0%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 87.5, 88.1, 88.1, 87.6
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 47.8, 45.4, 47.3, 46.3
Luminaire Efficacy Rating (LER): 11.48
Central Intensity: 174.85 cd
Max. Intensity: 184.53 cd
Pos of Max. Intensity: H135 V6
S/MH(C0/C180): 0.75
S/MH(C90/C270): 0.76

Picture Of Luminaire



Luminous Intensity Distribution Curve



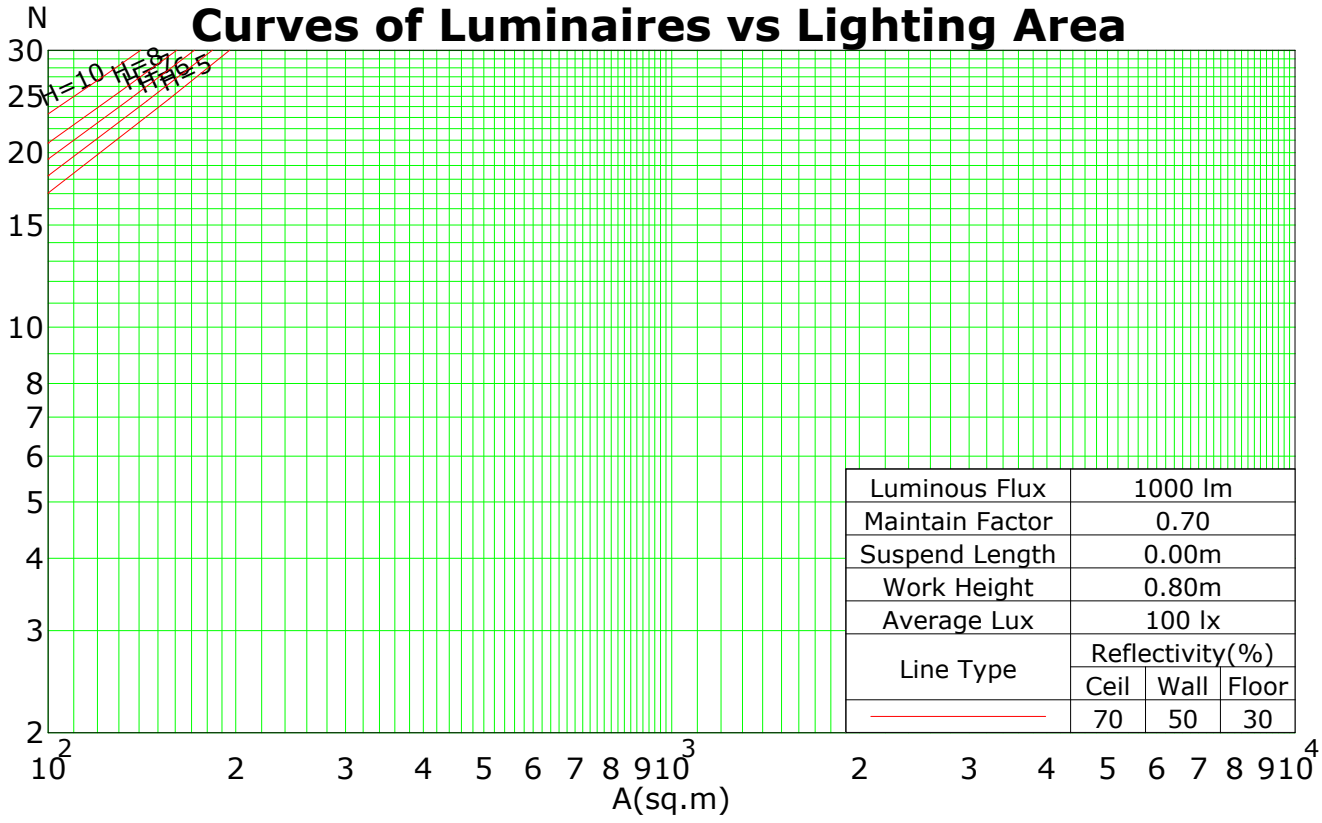
C Plane (°):0.0-360.0: 45.0
Gamma Plane (°):0.0-90.0:1.0
Test Lab: NINGBO LED LIGHTING
Test Device: GPM-1600L
Test Type: TYPE C
Distance: 6.500 m
Temperature: 25°C
Humidity:
Operator: DING LI
Inspector:

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	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85
3	101	95	89	85	99	93	88	84	90	86	83	88	85	82	86	83	80	79
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	74	73
5	91	82	76	71	89	81	75	71	79	74	70	78	73	70	76	72	69	68
6	86	77	70	66	85	76	70	66	74	69	65	73	68	65	72	68	64	63
7	82	72	66	61	80	71	65	61	70	65	61	69	64	61	68	63	60	59
8	78	68	62	57	76	67	61	57	66	61	57	65	60	57	64	60	56	55
9	74	64	58	54	73	63	58	54	62	57	53	62	57	53	61	56	53	52
10	70	60	55	51	69	60	54	50	59	54	50	58	54	50	58	53	50	49

Spacing Criteria (0-180): 0.75
Spacing Criteria (90-270): 0.76
Spacing Criteria (Diagonal): 0.78

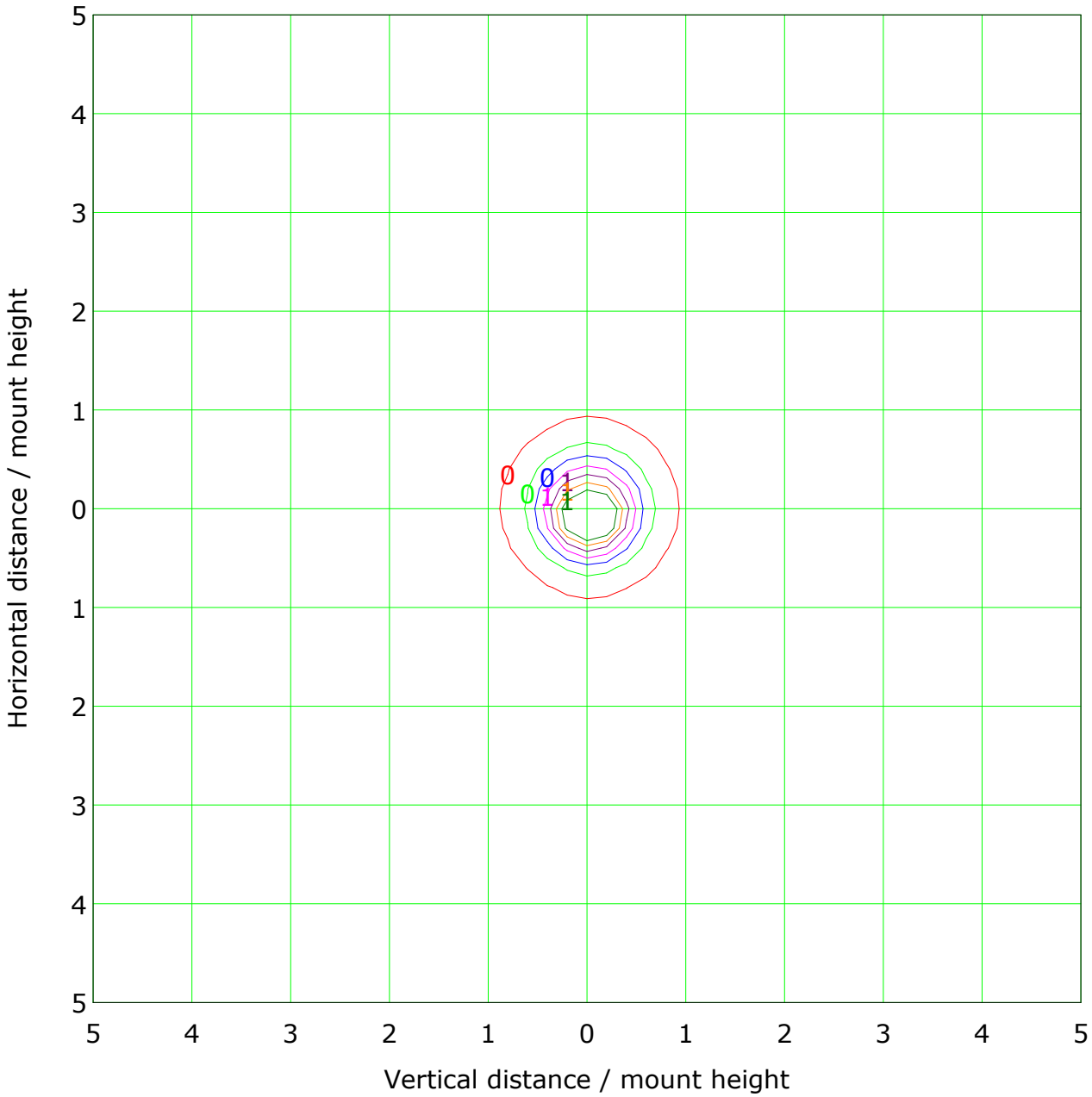
Curves of Luminaires vs Lighting Area



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



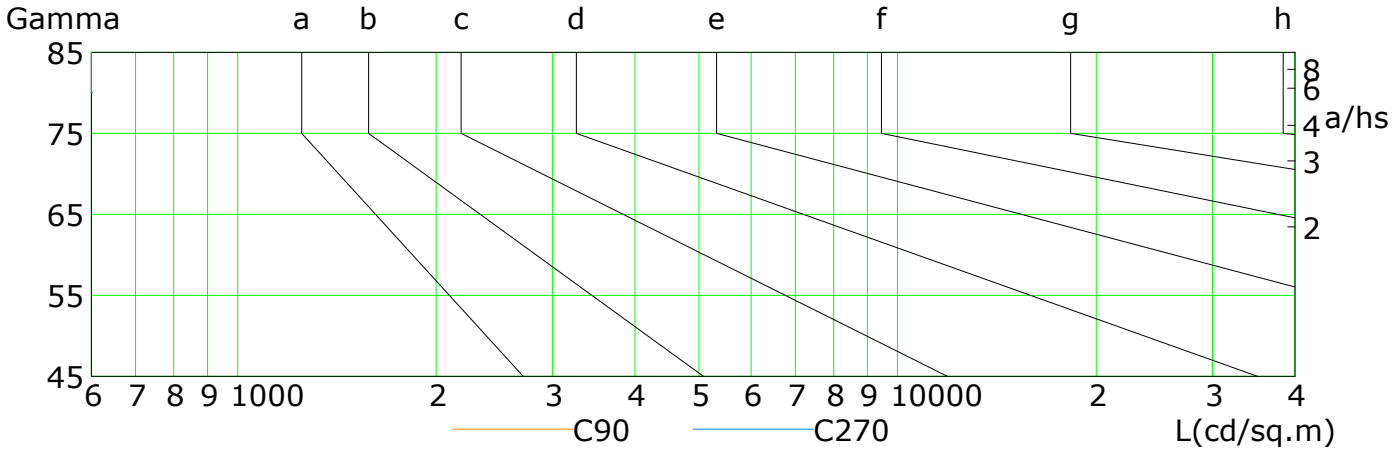
Mounting Height: 10.0m Max Lux(100%): 1.8 lx

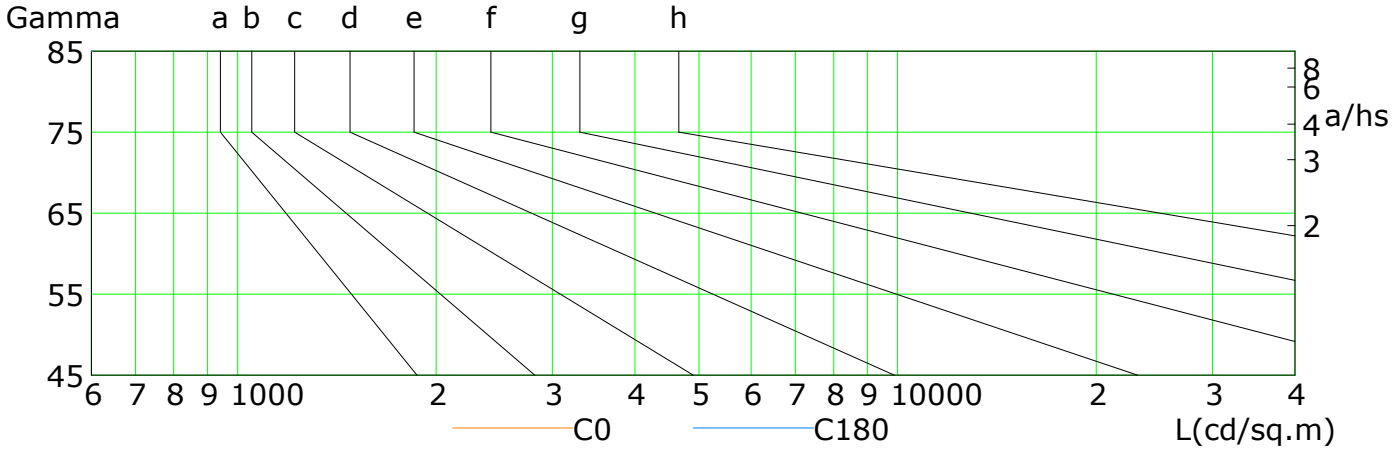
(5%): 0.1 lx
(15%): 0.3 lx
(25%): 0.5 lx
(35%): 0.6 lx
(45%): 0.8 lx
(55%): 1.0 lx
(65%): 1.2 lx

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



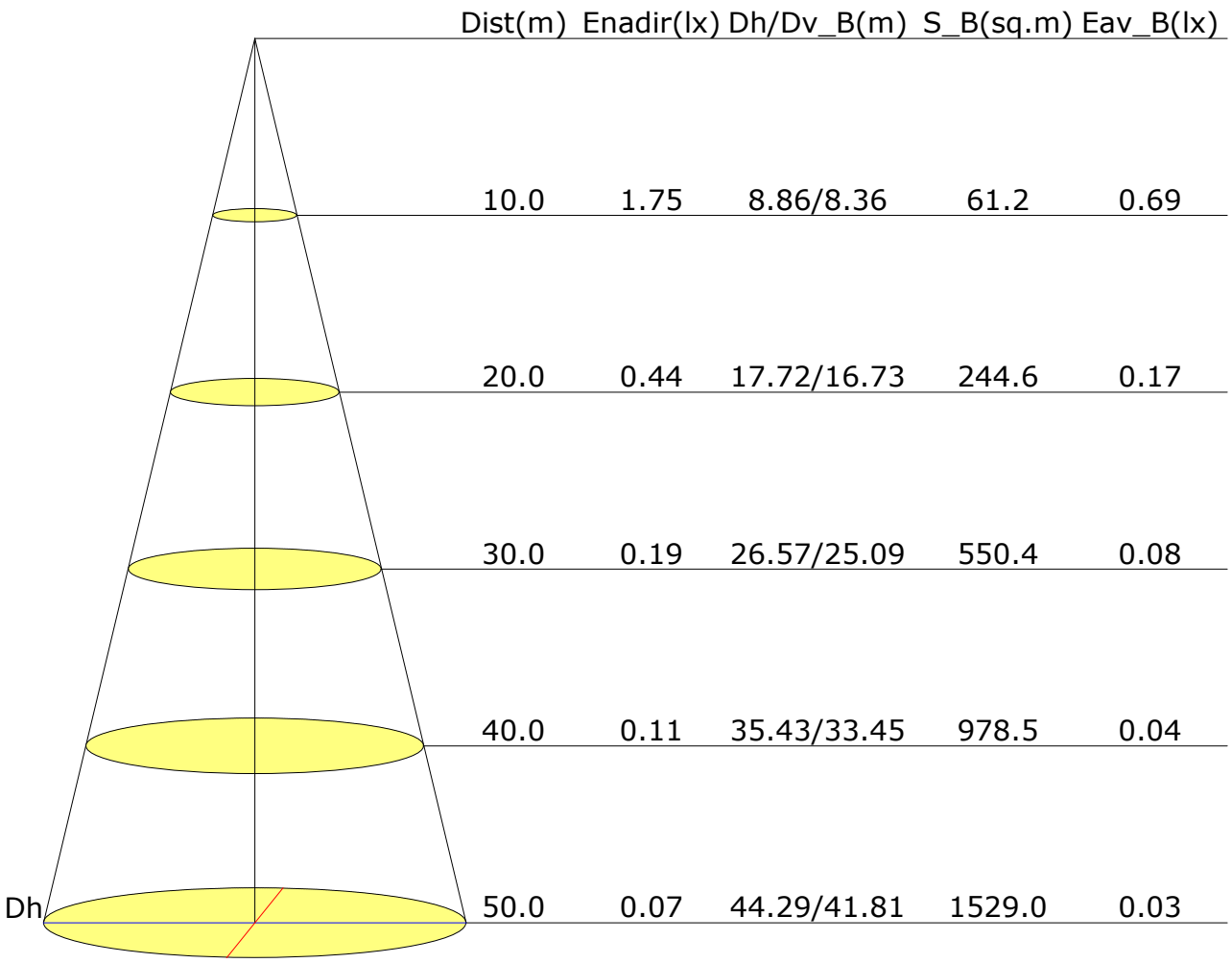


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	14	9	5	3	2	1	1	0	0
C90	16	9	6	3	2	1	0	0	0
C180	18	11	7	4	3	2	1	0	0
C270	18	11	7	4	2	1	0	0	0

C Plane (°):0.0-360.0: 45.0
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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:

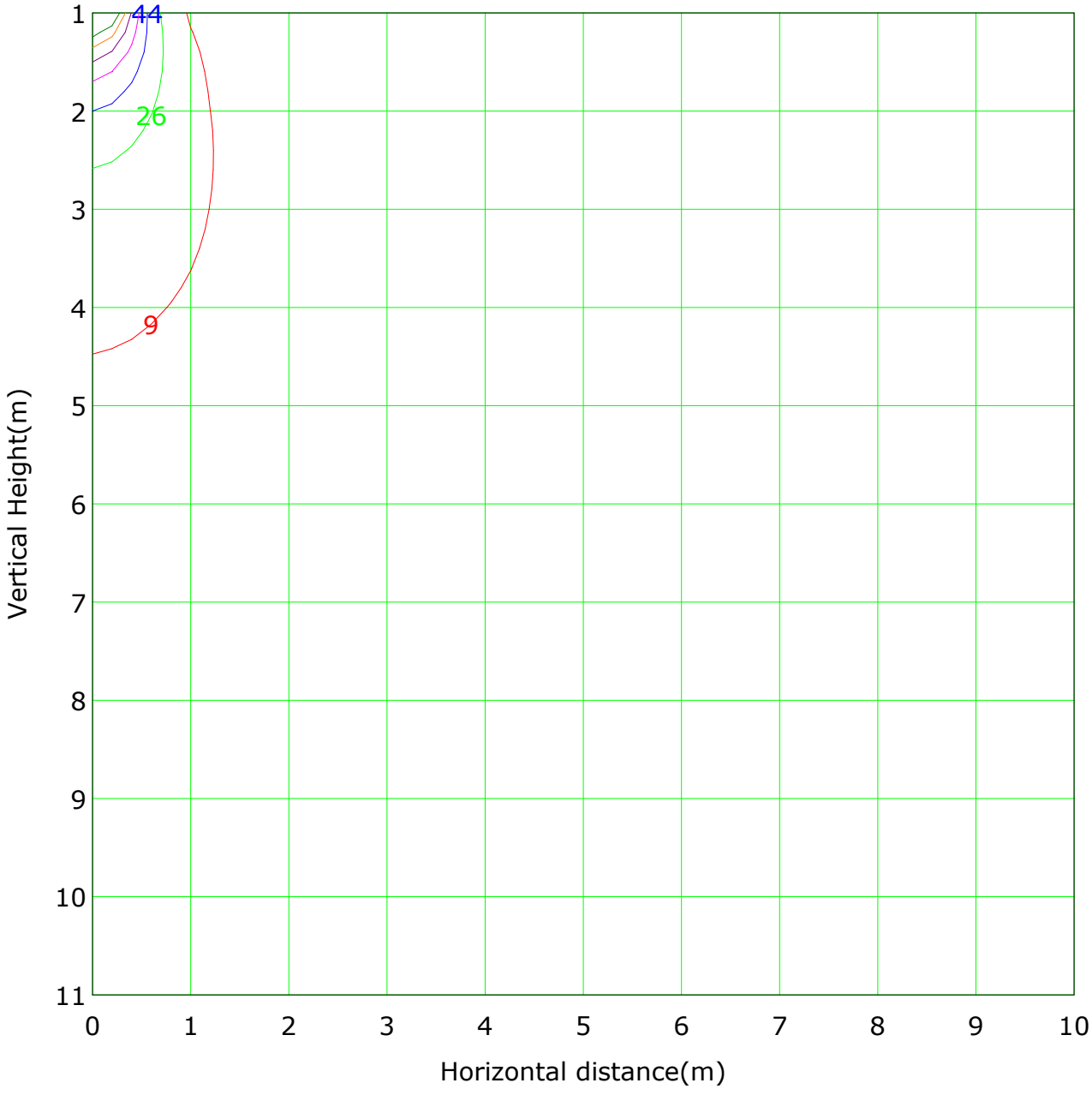
Illuminance at a Distance



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

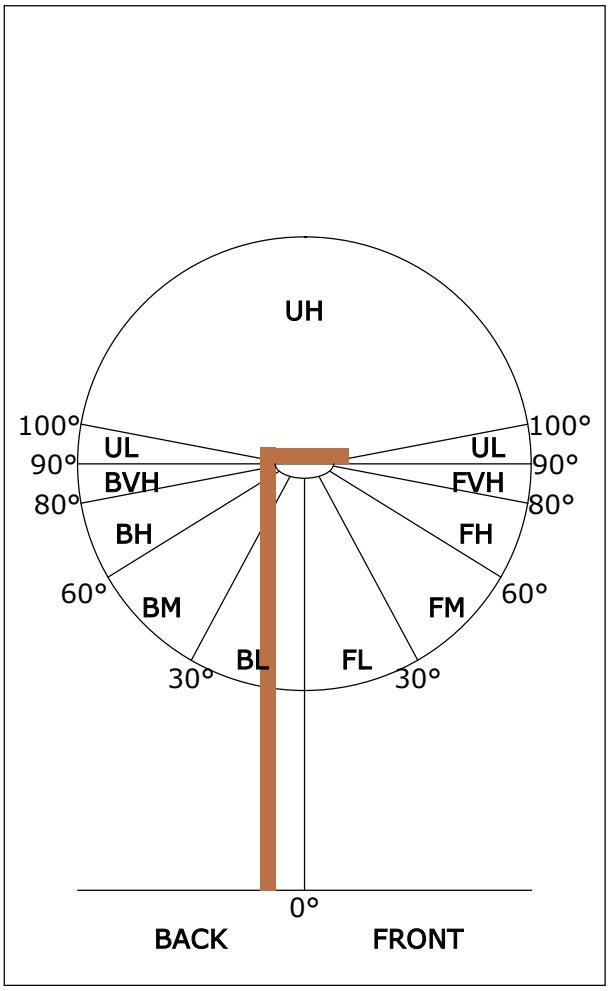


Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 174.9 lx

(5%): 8.7 lx
(15%): 26.2 lx
(25%): 43.7 lx
(35%): 61.2 lx
(45%): 78.7 lx
(55%): 96.2 lx
(65%): 113.7 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	72	52.3
FL (0°-30°)	49	35.8
FM (30°-60°)	21	15.5
FH (60°-80°)	1	0.9
FVH (80°-90°)	0	0.0
BACK LIGHT	66	47.7
BL (0°-30°)	42	30.4
BM (30°-60°)	22	16.3
BH (60°-80°)	1	1.1
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: