Report No.: 001 Test Time: 2022-12-09 11:58

Luminaire Property

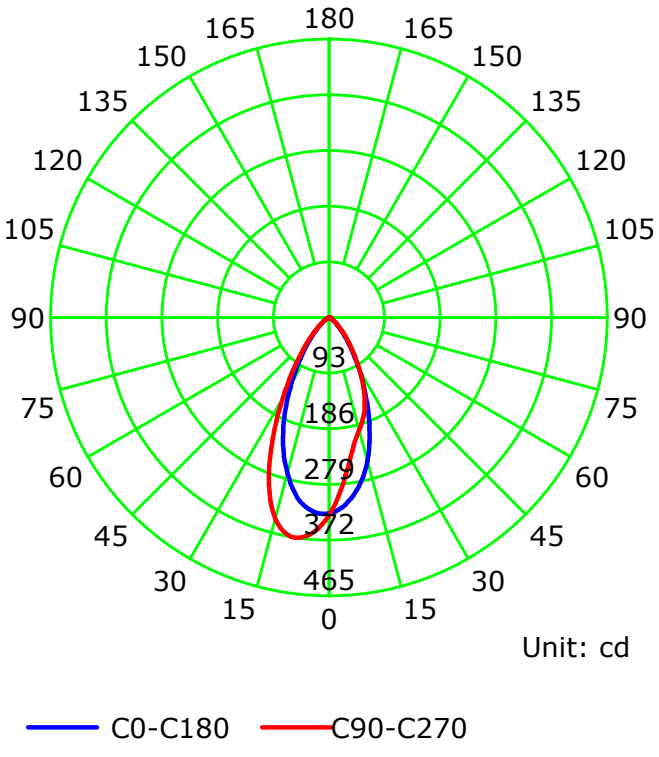
Luminaire Manufacturer:
Luminaire Category: Outdoor lighting
Luminaire Description: HCP-247240-45-R
Lamp Catalog: SMD
Number of Lamps: 1
Lumens per Lamp: 269.5 lm
Luminous Length (mm): 0 mm
Luminous Width (mm): 0 mm
Luminous Height (mm): 0 mm
Voltage: 24.0V
Current: 0.52A
Power: 12.48 W
Power Factor: 0.000

Photometric Results

CIE Class: Direct
Total Rated Lamp Lumens: 269.5 lm
Measurement Flux: 269.5 lm
Efficiency: 100.01%
Downward Ratio: 100.01%
Upward Ratio: 0.00%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 87.4, 87.3, 86.8, 87.6
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 49.3, 44.6, 46.9, 47.7
Luminaire Efficacy Rating (LER): 21.65
Central Intensity: 327.77 cd
Max. Intensity: 372.58 cd
Pos of Max. Intensity: H270 V9
S/MH(C0/C180): 0.77
S/MH(C90/C270): 0.82

Picture Of Luminaire

Luminous Intensity Distribution Curve



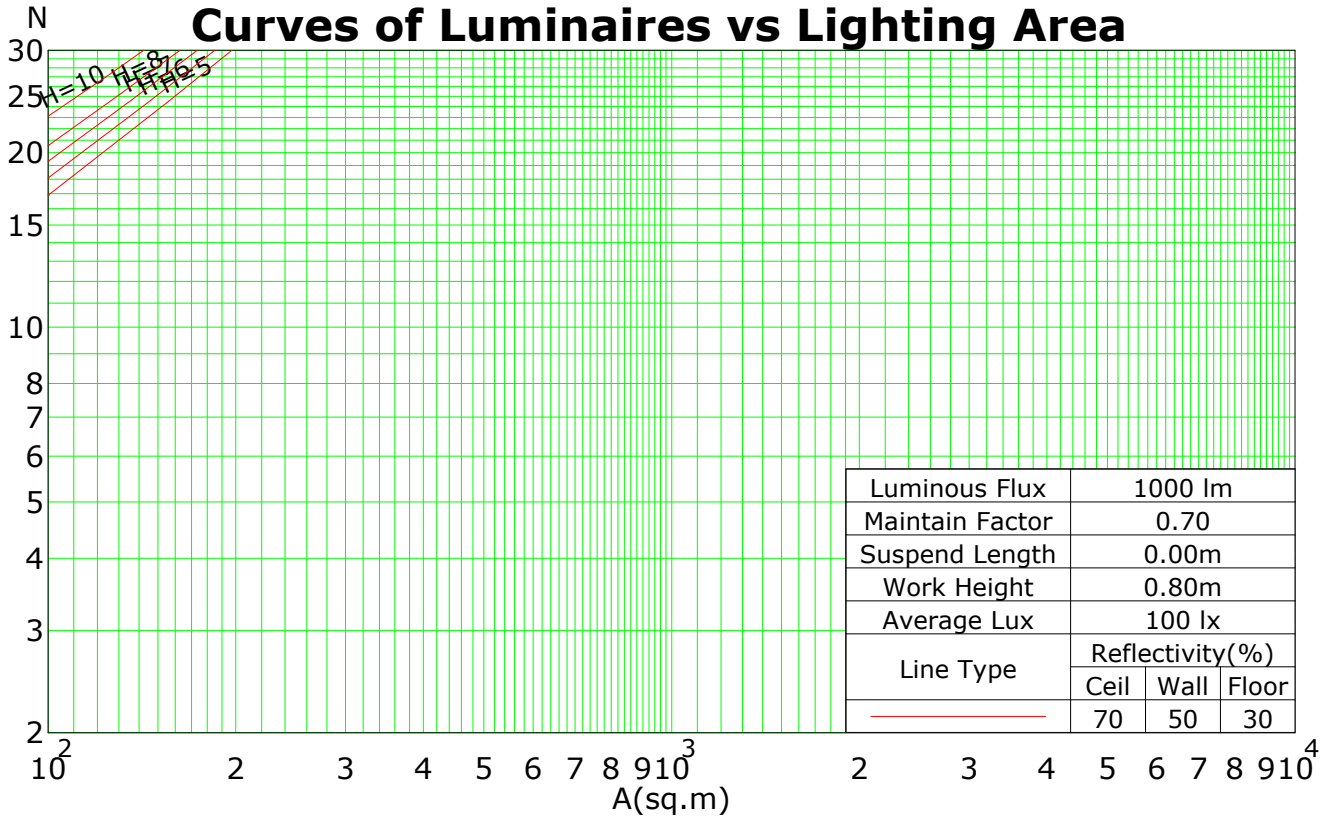
C Plane (°):0.0-360.0: 45.0
Gamma Plane (°):0.0-90.0:1.0
Test Lab: NINGBO LED LIGHTING
Test Device: GPM-1600L
Test Type: TYPE C
Distance: 6.500 m
Temperature: 25°C
Humidity:
Operator: DING LI
Inspector:

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	107	102	98	95	105	101	97	94	97	94	92	94	92	90	92	90	88	86
3	102	95	90	86	100	94	89	85	91	87	84	89	85	83	86	84	81	80
4	96	89	83	79	95	87	82	78	85	81	77	83	79	76	81	78	75	74
5	91	83	77	72	90	82	76	72	80	75	71	78	74	71	77	73	70	68
6	87	77	71	67	85	77	71	67	75	70	66	74	69	66	72	68	65	64
7	82	73	66	62	81	72	66	62	71	65	62	70	65	61	68	64	61	60
8	78	68	62	58	77	68	62	58	67	61	58	66	61	57	65	60	57	56
9	74	65	58	54	73	64	58	54	63	58	54	62	57	54	61	57	54	52
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	49

Spacing Criteria (0-180): 0.77
Spacing Criteria (90-270): 0.82
Spacing Criteria (Diagonal): 0.81

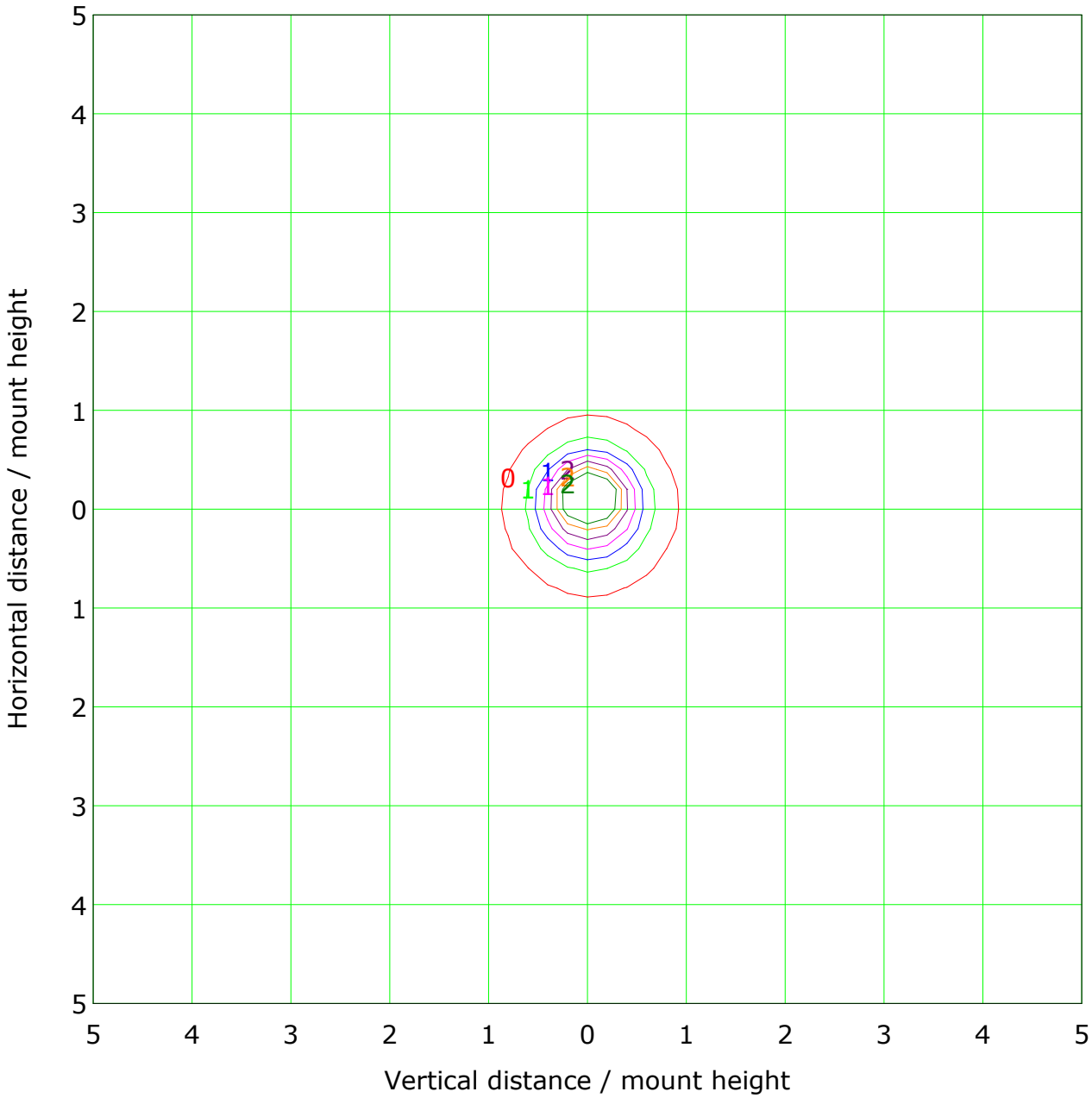
Curves of Luminaires vs Lighting Area



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



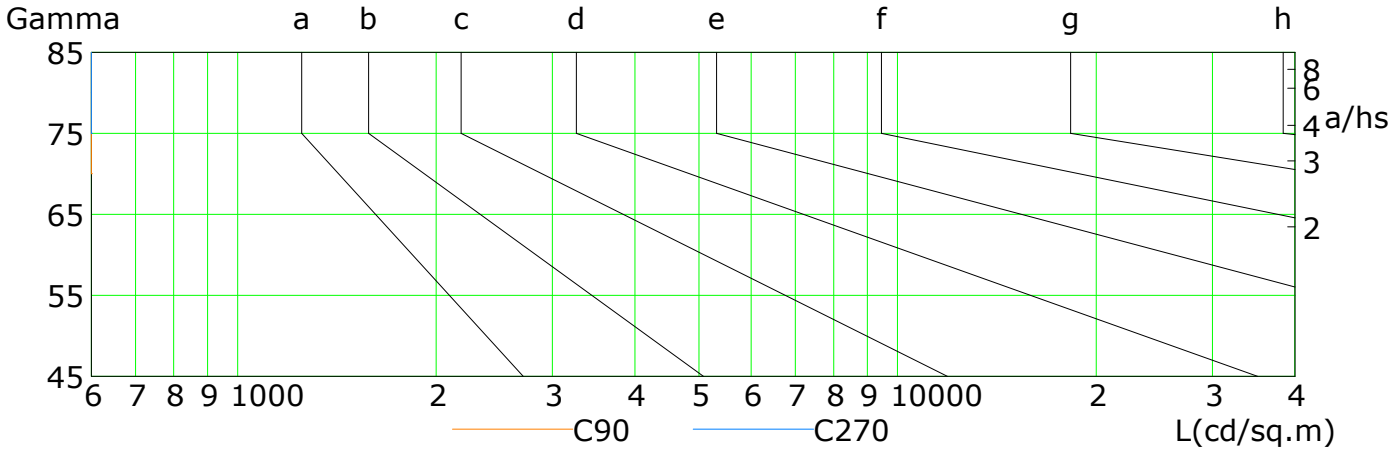
Mounting Height: 10.0m Max Lux(100%): 3.6 lx

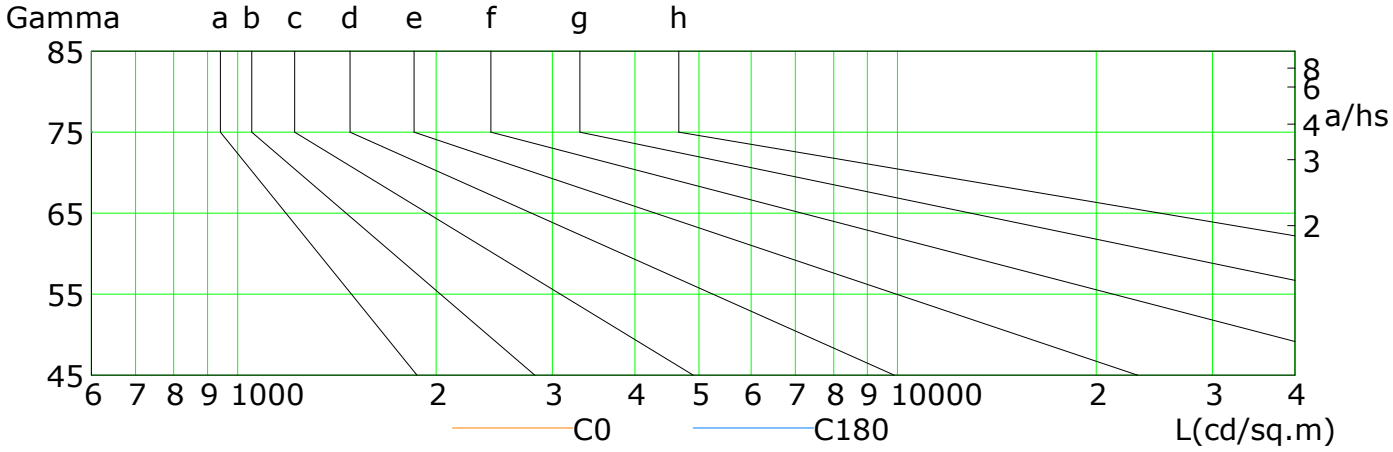
(5%): 0.2 lx
(15%): 0.5 lx
(25%): 0.9 lx
(35%): 1.3 lx
(45%): 1.6 lx
(55%): 2.0 lx
(65%): 2.4 lx

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:

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



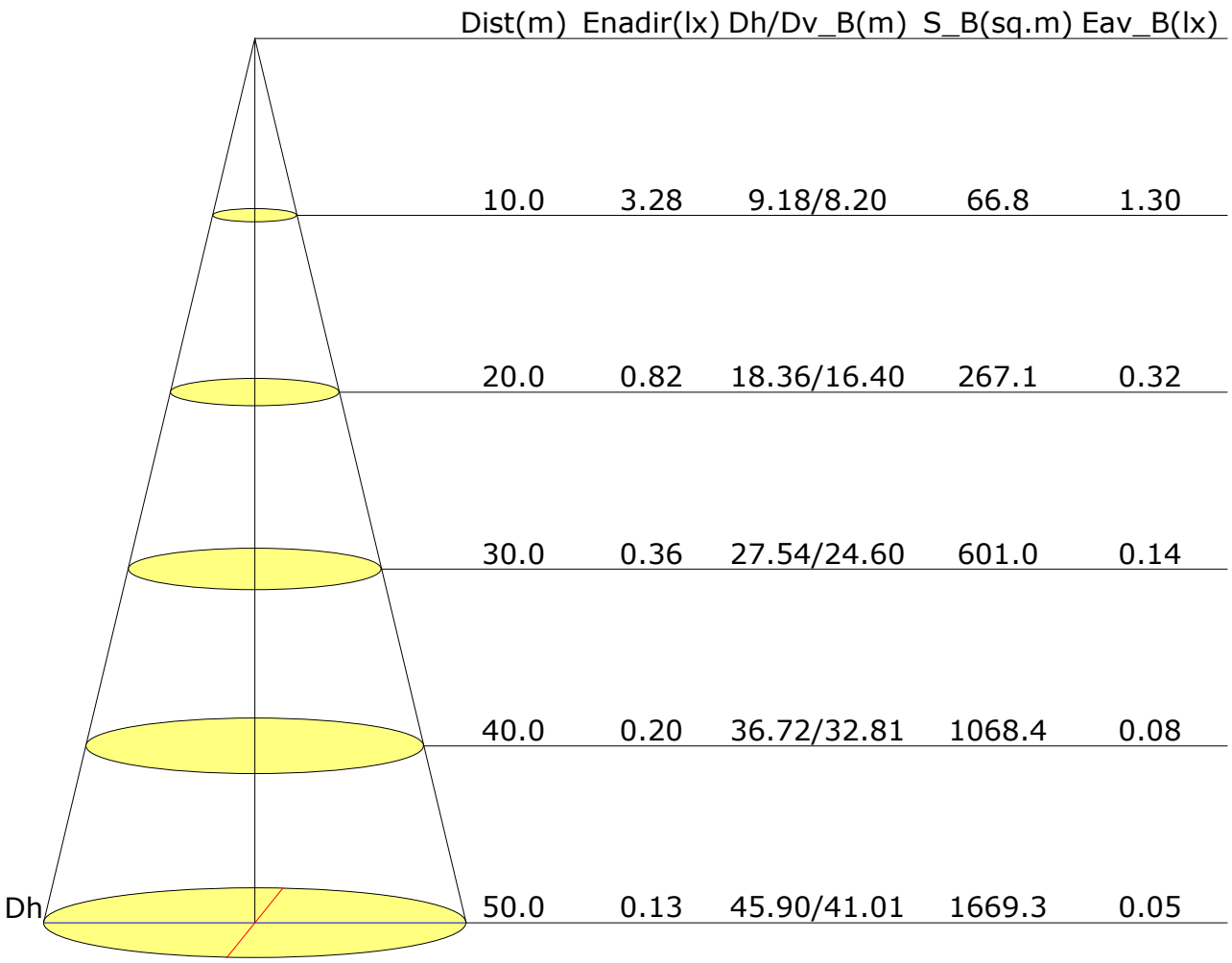


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	25	15	8	5	2	0	0	0	0
C90	29	17	9	5	2	0	0	0	0
C180	33	19	11	6	3	1	0	0	0
C270	37	21	12	7	3	1	0	0	0

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:

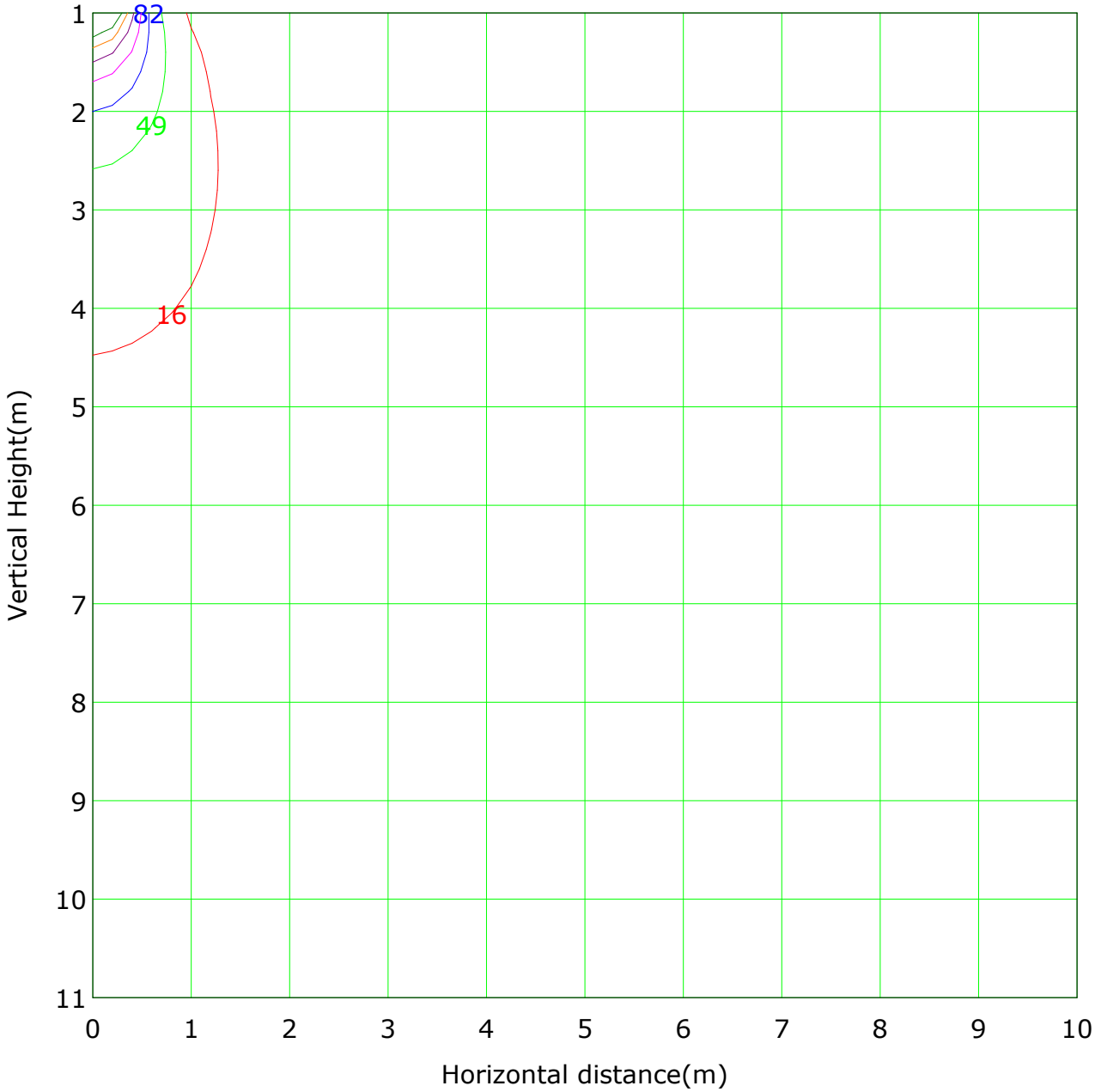
Illuminance at a Distance



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

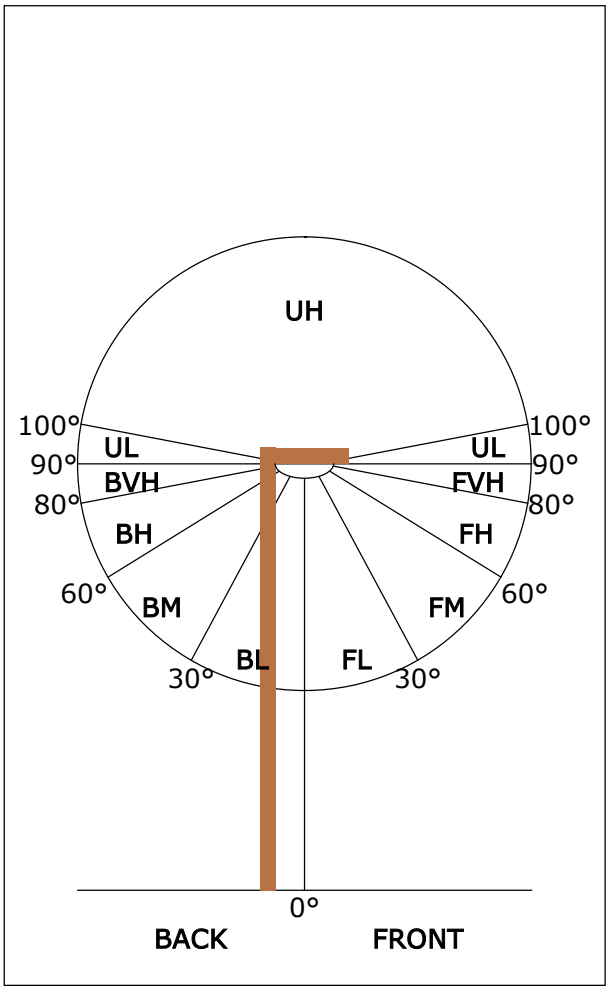


Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 327.8 lx

(5%): 16.4 lx
(15%): 49.2 lx
(25%): 81.9 lx
(35%): 114.7 lx
(45%): 147.5 lx
(55%): 180.3 lx
(65%): 213.1 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	117	43.3
FL (0°-30°)	77	28.6
FM (30°-60°)	38	14.3
FH (60°-80°)	1	0.4
FVH (80°-90°)	0	0.0
BACK LIGHT	153	56.8
BL (0°-30°)	105	38.9
BM (30°-60°)	47	17.3
BH (60°-80°)	1	0.5
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: