Report No.: 001 Test Time: 2022-12-09 12:18

Luminaire Property

Luminaire Manufacturer:
Luminaire Category: Outdoor lighting
Luminaire Description: HCP-247241-45
Lamp Catalog: SMD
Voltage: 24.0V
Current: 0.989A
Power: 23.736W
Power Factor: 0.000

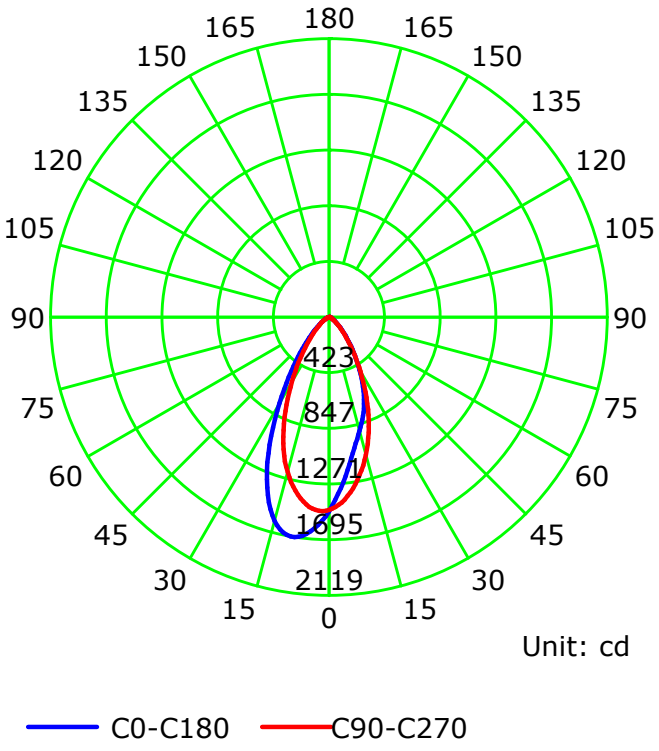
Photometric Results

CIE Class: Direct
Total Rated Lamp Lumens: 1276.6 lm
Measurement Flux: 1276.6 lm
Efficiency: 100%
Downward Ratio: 100%
Upward Ratio: 0%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 89.6, 90.0, 88.9, 89.8
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 45.5, 49.6, 46.8, 48.4
Luminaire Efficacy Rating (LER): 53.83
Central Intensity: 1479.04 cd
Max. Intensity: 1695.3 cd
Pos of Max. Intensity: H180 V10
S/MH(C0/C180): 0.85
S/MH(C90/C270): 0.77

Picture Of Luminaire



Luminous Intensity Distribution Curve



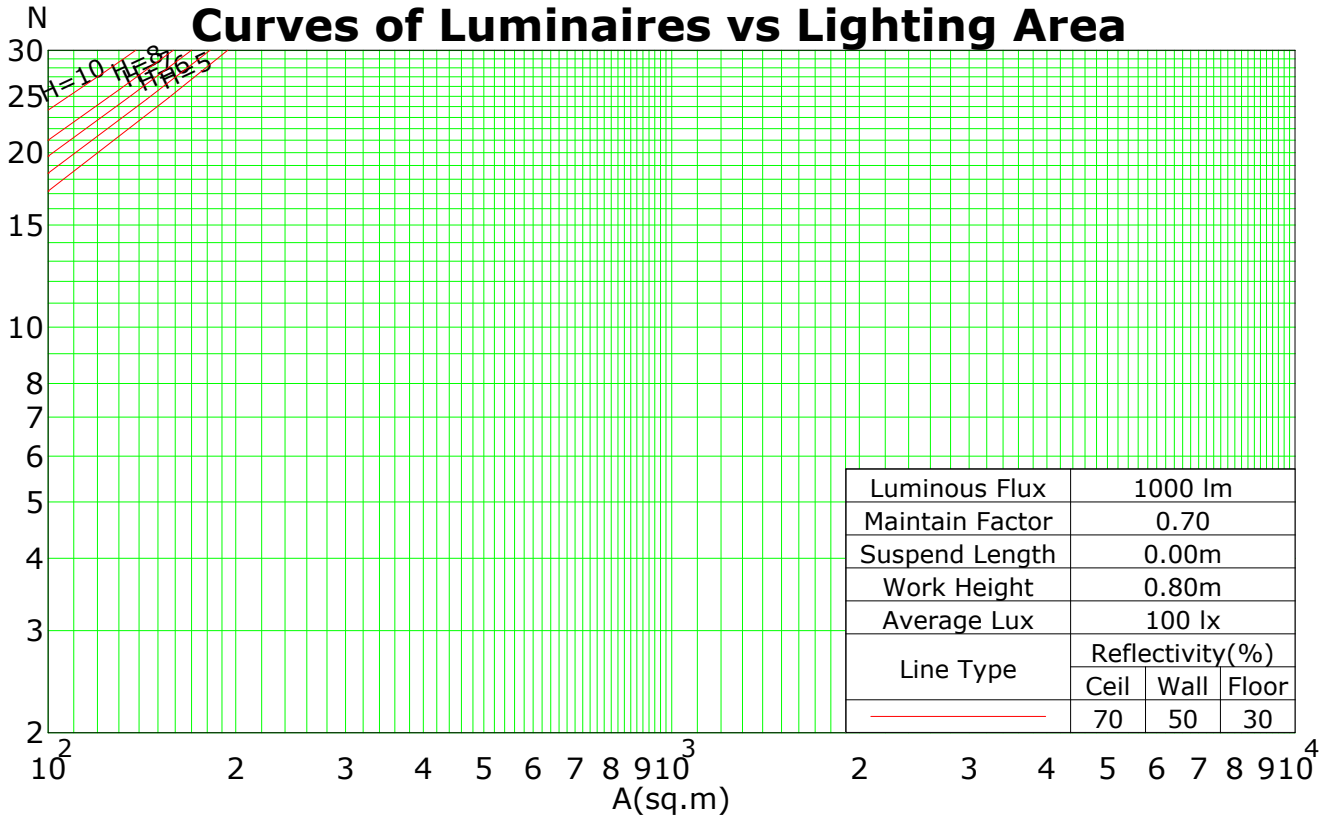
C Plane (°):0.0-360.0: 45.0
Gamma Plane (°):0.0-90.0:1.0
Test Lab: NINGBO LED LIGHTING
Test Device: GPM-1600L
Test Type: TYPE C
Distance: 6.500 m
Temperature: 25°C
Humidity:
Operator: DING LI
Inspector:

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	107	105	111	108	106	103	104	102	100	100	99	97	97	96	94	93
2	107	102	97	94	105	100	96	93	97	93	91	94	91	89	91	89	87	85
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	85	82	80	78
4	95	87	81	77	94	86	81	76	84	79	76	82	78	75	80	77	74	72
5	90	81	75	71	89	80	75	70	79	74	70	77	72	69	75	71	68	67
6	86	76	70	65	84	75	69	65	74	68	64	72	68	64	71	67	64	62
7	81	71	65	60	80	71	65	60	69	64	60	68	63	60	67	63	59	58
8	77	67	61	56	76	66	60	56	65	60	56	64	59	56	63	59	55	54
9	73	63	57	53	72	63	57	53	62	56	52	61	56	52	60	55	52	51
10	70	60	54	49	69	59	53	49	58	53	49	58	53	49	57	52	49	48

Spacing Criteria (0-180): 0.85
Spacing Criteria (90-270): 0.77
Spacing Criteria (Diagonal): 0.81

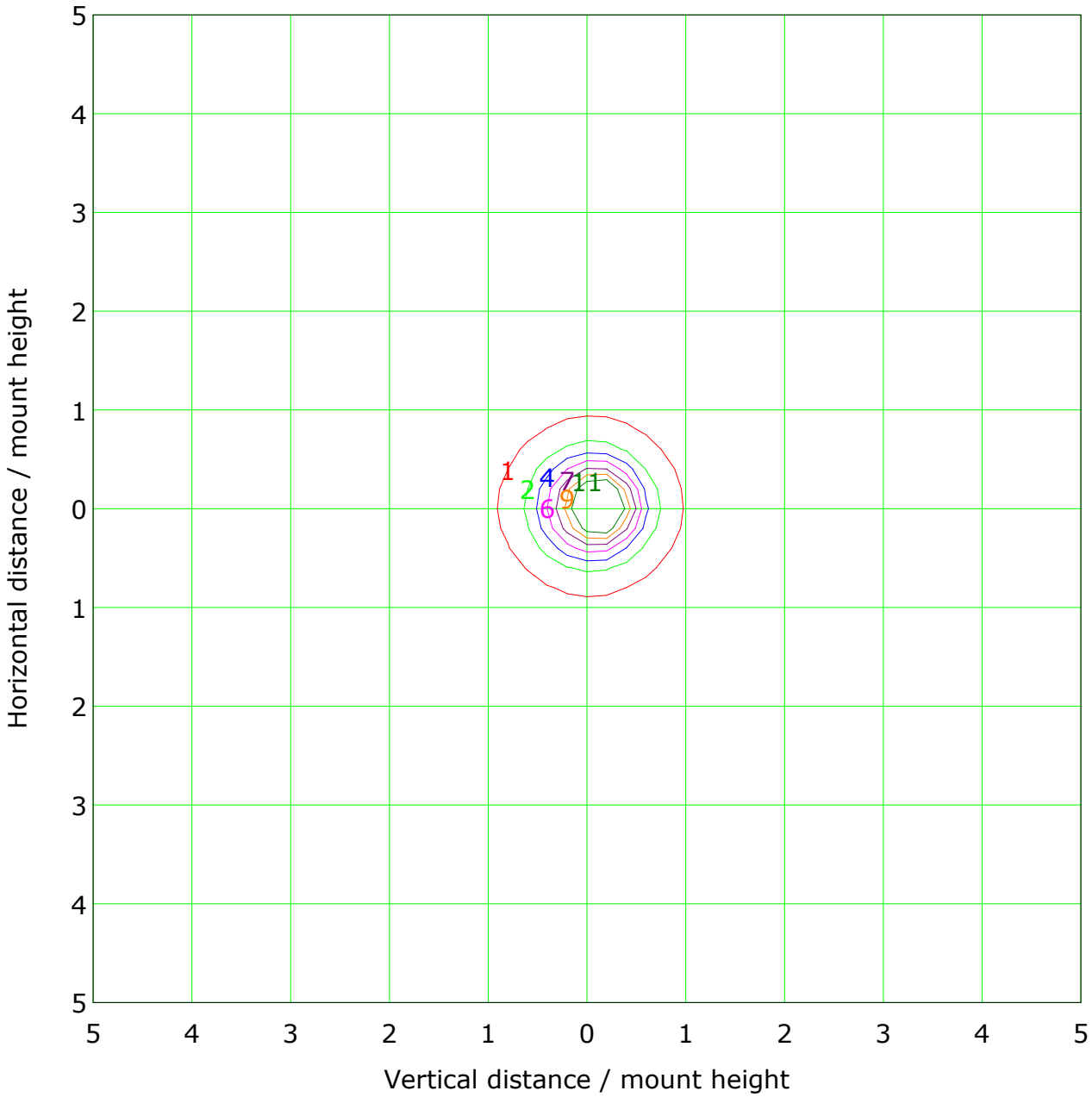
Curves of Luminaires vs Lighting Area



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



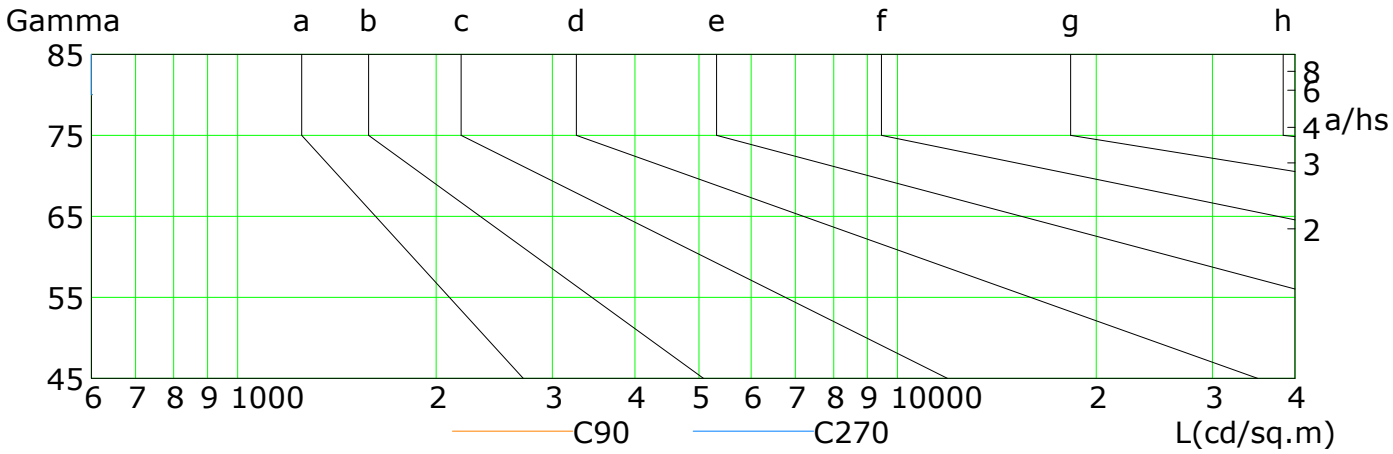
Mounting Height: 10.0m Max Lux(100%): 16.4 lx

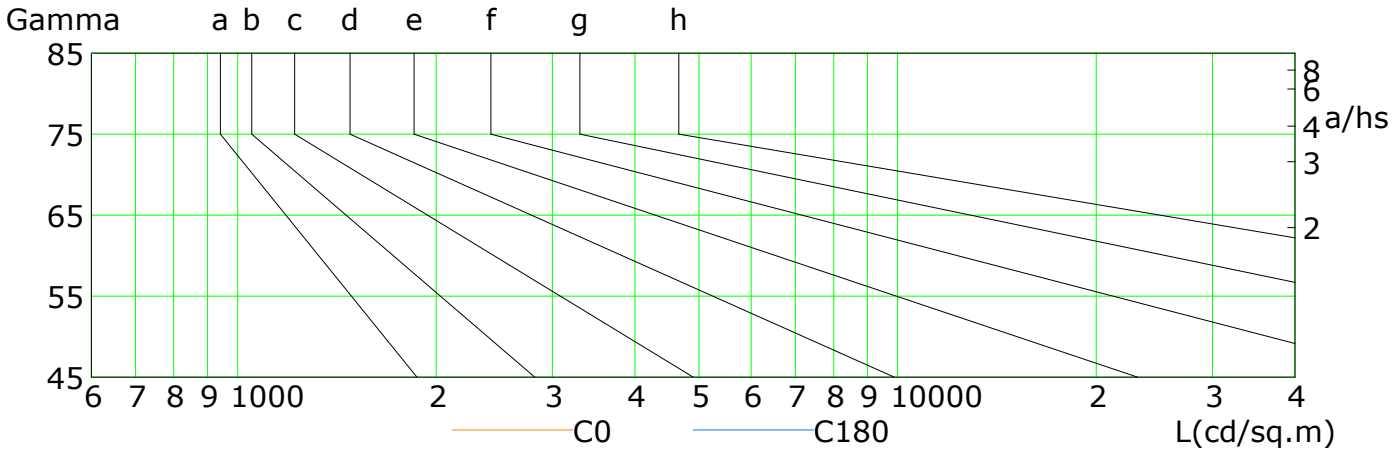
(5%): 0.8 lx
(15%): 2.5 lx
(25%): 4.1 lx
(35%): 5.7 lx
(45%): 7.4 lx
(55%): 9.0 lx
(65%): 10.7 lx

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:

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



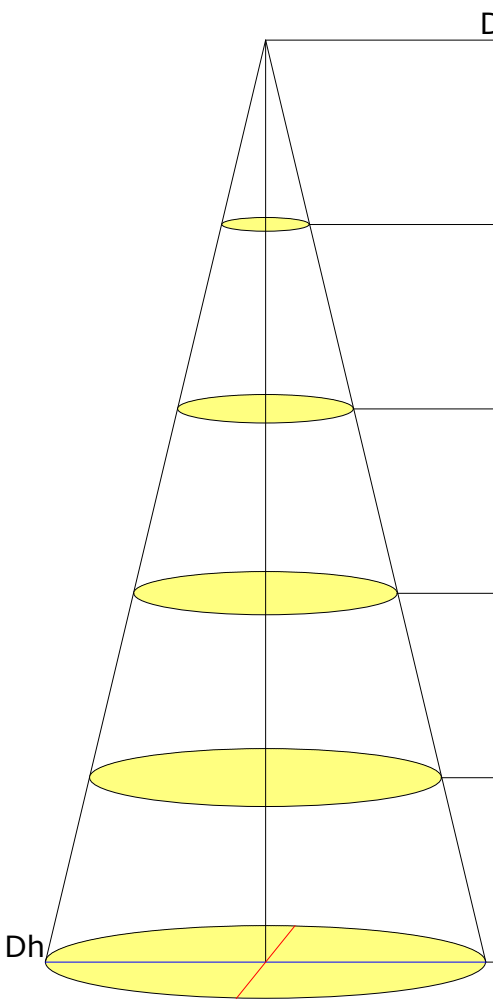


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	144	91	57	36	22	12	6	2	0
C90	134	83	51	31	18	8	1	0	0
C180	195	118	72	44	28	17	8	5	0
C270	163	103	64	40	23	12	4	0	0

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



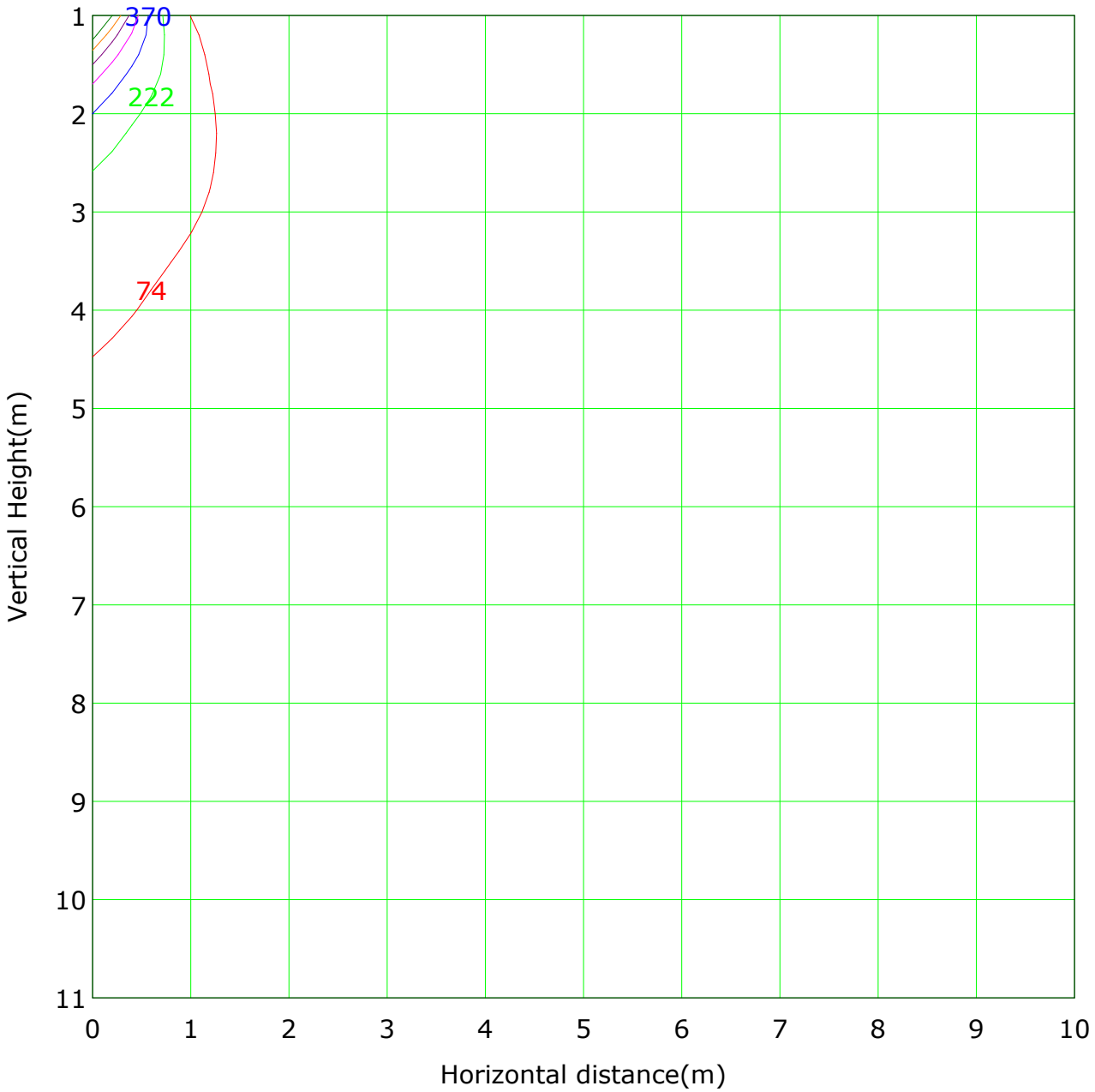
Dist(m)	Enadir(lx)	Dh/Dv_B(m)	S_B(sq.m)	Eav_B(lx)
10.0	14.79	8.39/9.25	68.5	5.82
20.0	3.70	16.77/18.50	273.9	1.45
30.0	1.64	25.16/27.75	616.2	0.65
40.0	0.92	33.55/37.00	1095.4	0.36
50.0	0.59	41.93/46.24	1711.6	0.23

Beam Angle(B): H45.5 V49.6 Field Angle(F): H89.6 V90.0

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:

Vertical IsoLux Plot

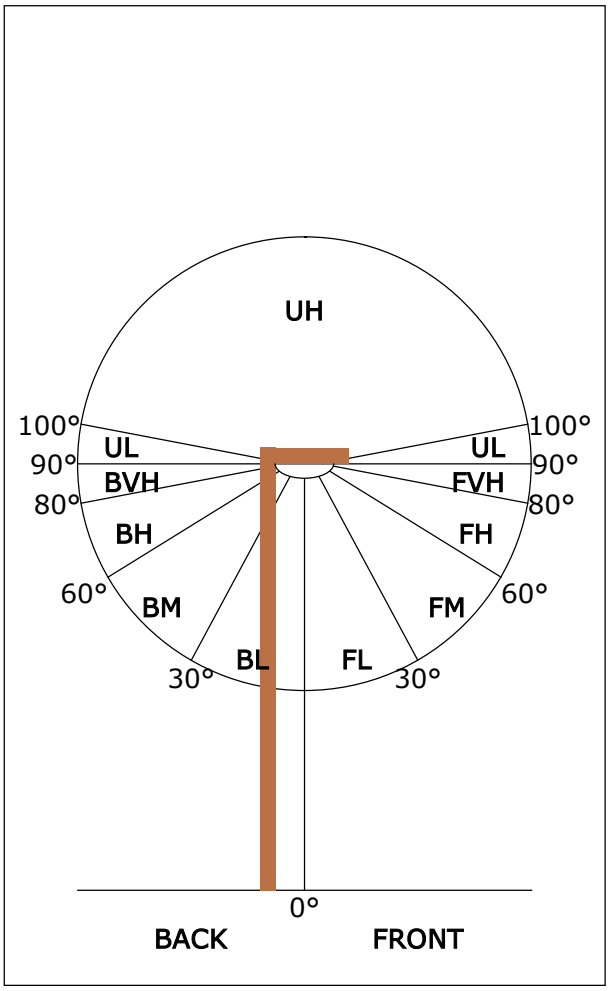


Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 1479.0 lx

(5%): 74.0 lx
(15%): 221.9 lx
(25%): 369.8 lx
(35%): 517.7 lx
(45%): 665.6 lx
(55%): 813.5 lx
(65%): 961.4 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:

FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM



ZONE	LUMENS	% LAMP LUMENS
FORWARD LIGHT	607	47.5
FL (0°-30°)	397	31.1
FM (30°-60°)	197	15.5
FH (60°-80°)	12	1.0
FVH (80°-90°)	0	0.0
BACK LIGHT	670	52.5
BL (0°-30°)	431	33.7
BM (30°-60°)	224	17.6
BH (60°-80°)	15	1.2
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
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: