

Report No.:

Test Time:

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category: LED FLOODLIGHT

Lamp Catalog: LED

Number of Lamps:

Luminous Length (mm):

Luminous Height (mm):

Current: 0.047 A

Power Factor: 0.914

Luminaire Description: E002EI-10W-RED

Lamp Description: SMD

Lumens per Lamp:

Luminous Width (mm):

Voltage: 230.3 V

Power: 10.10 W

## Photometric Results

IES NEMA Type: 7H x 7V

Measurement Flux: 150.9 lm

Field Lumens: 147.8 lm

Field Angle: H145.9, V162.6

Luminaire Efficacy Rating (LER): 14.99

Max. Intensity: 57.98 cd

Total Rated Lamp Lumens: 150.9 lm

Efficiency: 100%

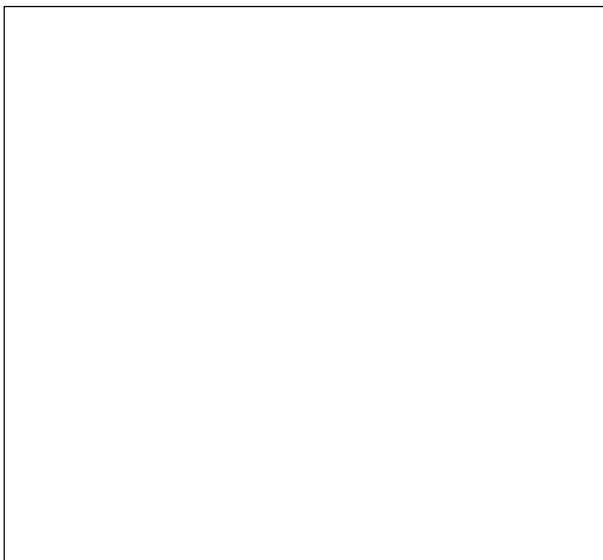
Field Efficiency: 97.97%

Beam Angle: H110.3, V104.8

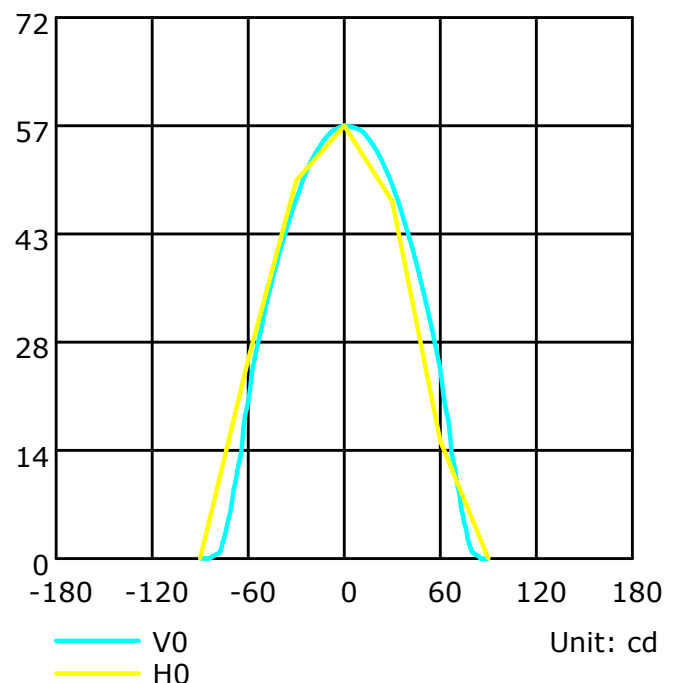
C0r0 Intensity: 57.98 cd

Pos of Max. Intensity: H0 V0

Picture Of Luminaire



Luminous Intensity Distribution Curve



B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: Z

Beta Plane (°):-90.0-90.0:1.0

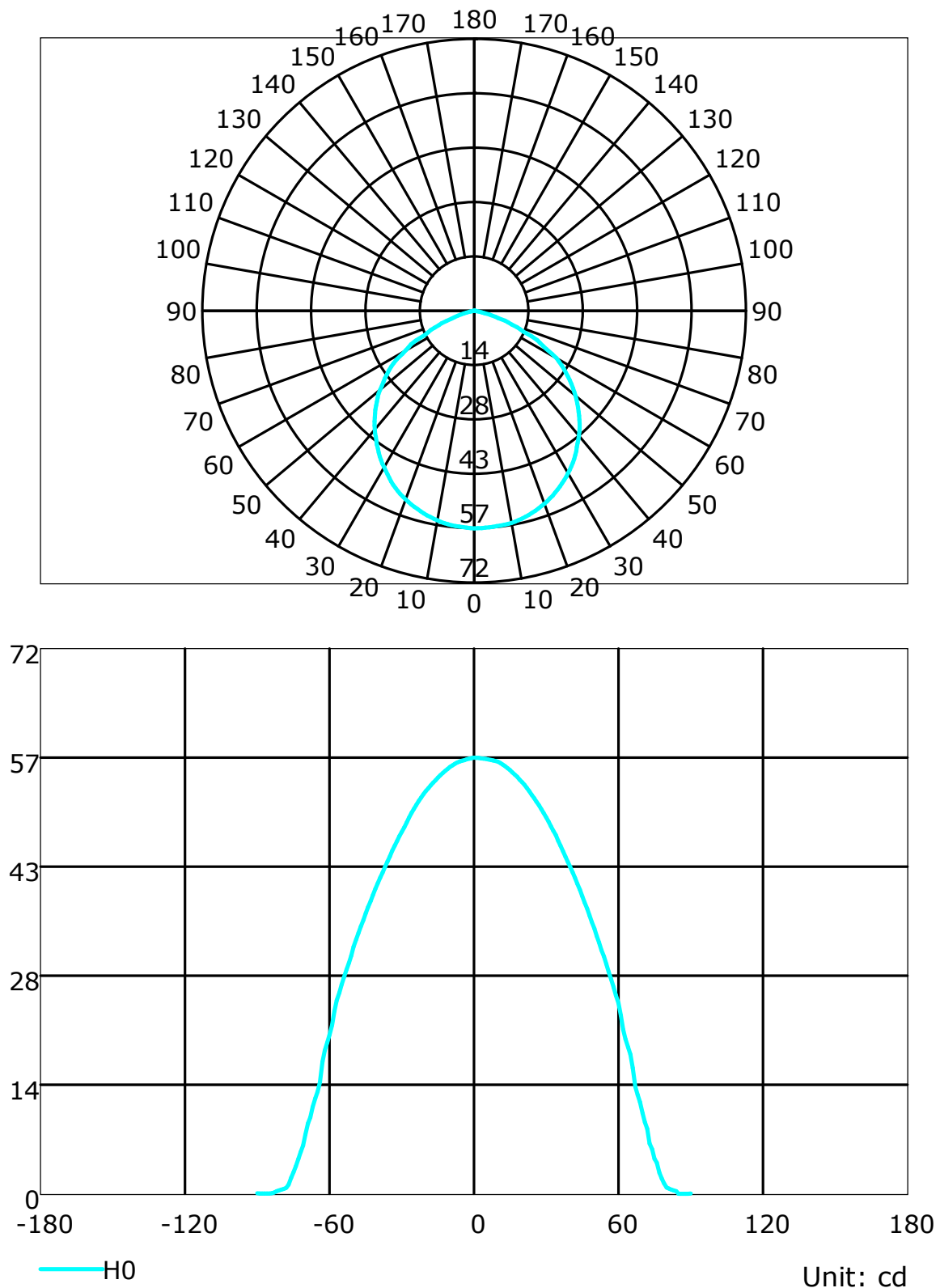
Test Device: GPM-1600L

Distance: 7.132 m

Humidity:

Inspector:

## Luminous Intensity Distribution Curve



B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: Z

Beta Plane (°):-90.0-90.0:1.0

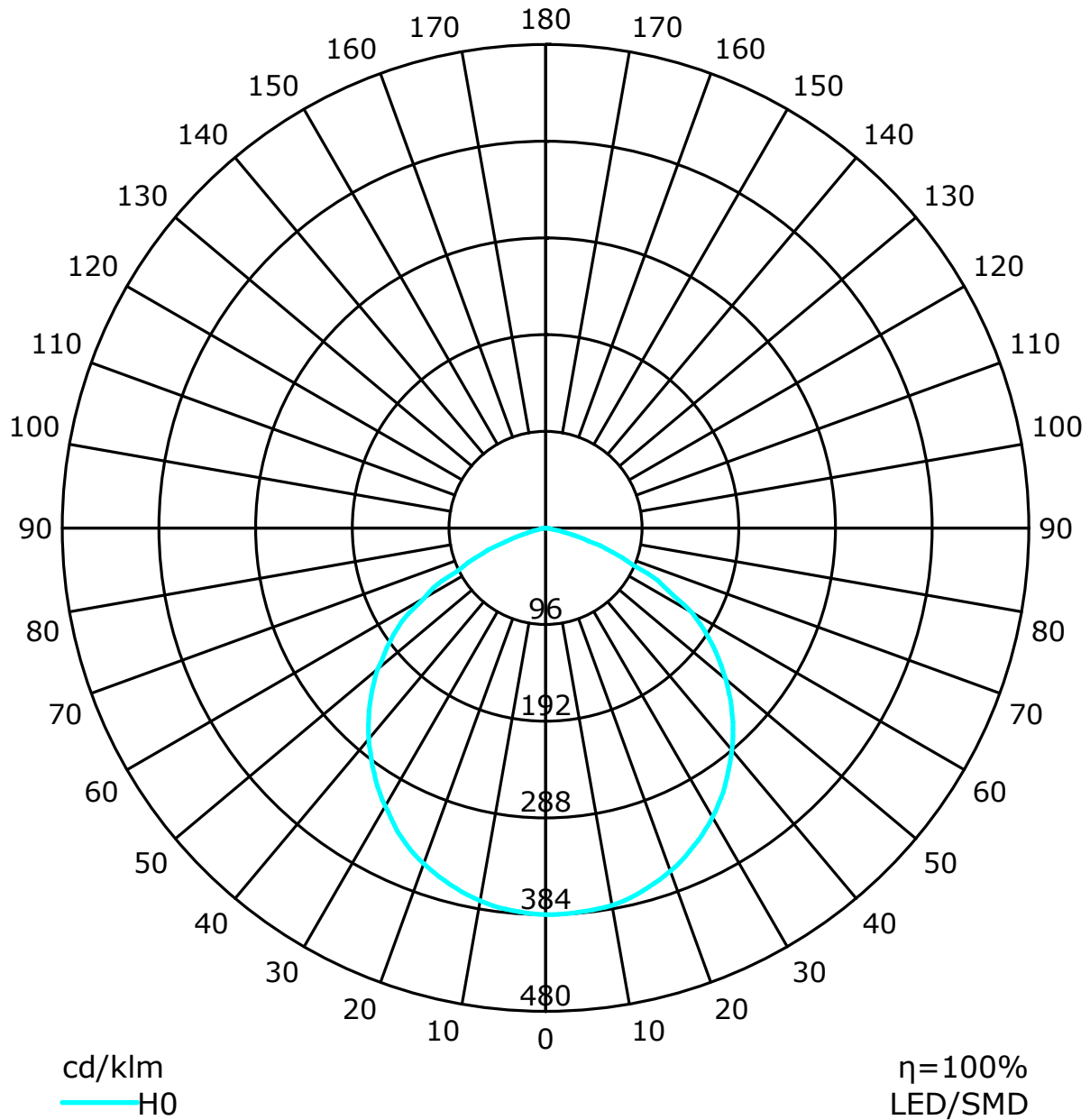
Test Device: GPM-1600L

Distance: 7.132 m

Humidity:

Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: Z

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.132 m

Humidity:

Inspector:

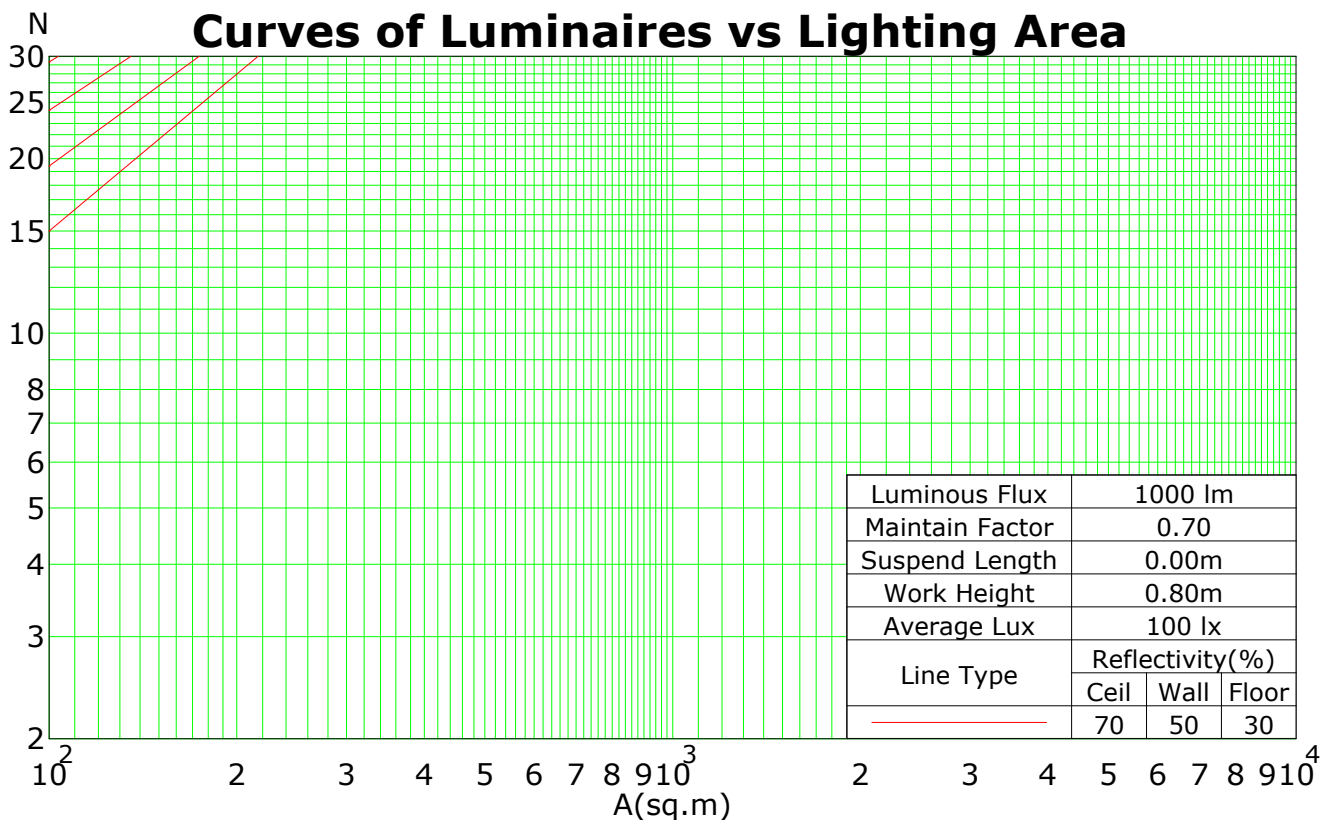
## Coefficients Of Utilization - Zonal Cavity Method

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	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.09	1.05	1.01	0.97	1.07	1.03	0.99	0.95	0.98	0.95	0.92	0.94	0.92	0.90	0.91	0.89	0.87	0.85
2	1.00	0.92	0.85	0.80	0.97	0.90	0.84	0.79	0.86	0.81	0.77	0.83	0.79	0.75	0.80	0.77	0.74	0.71
3	0.91	0.81	0.73	0.67	0.89	0.79	0.72	0.66	0.77	0.70	0.65	0.74	0.68	0.64	0.71	0.67	0.63	0.61
4	0.84	0.72	0.63	0.57	0.81	0.71	0.63	0.57	0.68	0.61	0.56	0.66	0.60	0.55	0.64	0.59	0.54	0.52
5	0.77	0.65	0.56	0.49	0.75	0.63	0.55	0.49	0.61	0.54	0.48	0.59	0.53	0.48	0.57	0.52	0.47	0.45
6	0.71	0.58	0.49	0.43	0.69	0.57	0.49	0.43	0.55	0.48	0.42	0.54	0.47	0.42	0.52	0.46	0.42	0.40
7	0.66	0.53	0.44	0.38	0.64	0.52	0.44	0.38	0.50	0.43	0.38	0.49	0.42	0.37	0.48	0.42	0.37	0.35
8	0.62	0.48	0.40	0.34	0.60	0.48	0.40	0.34	0.46	0.39	0.34	0.45	0.38	0.34	0.44	0.38	0.33	0.31
9	0.58	0.44	0.36	0.31	0.56	0.44	0.36	0.31	0.43	0.35	0.30	0.41	0.35	0.30	0.40	0.34	0.30	0.28
10	0.54	0.41	0.33	0.28	0.53	0.40	0.33	0.28	0.39	0.32	0.28	0.38	0.32	0.27	0.38	0.32	0.27	0.26

Spacing Criteria (0-180): 1.26

Spacing Criteria (90-270): 1.25

Spacing Criteria (Diagonal): 1.36



B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: Z

Beta Plane (°):-90.0-90.0:1.0

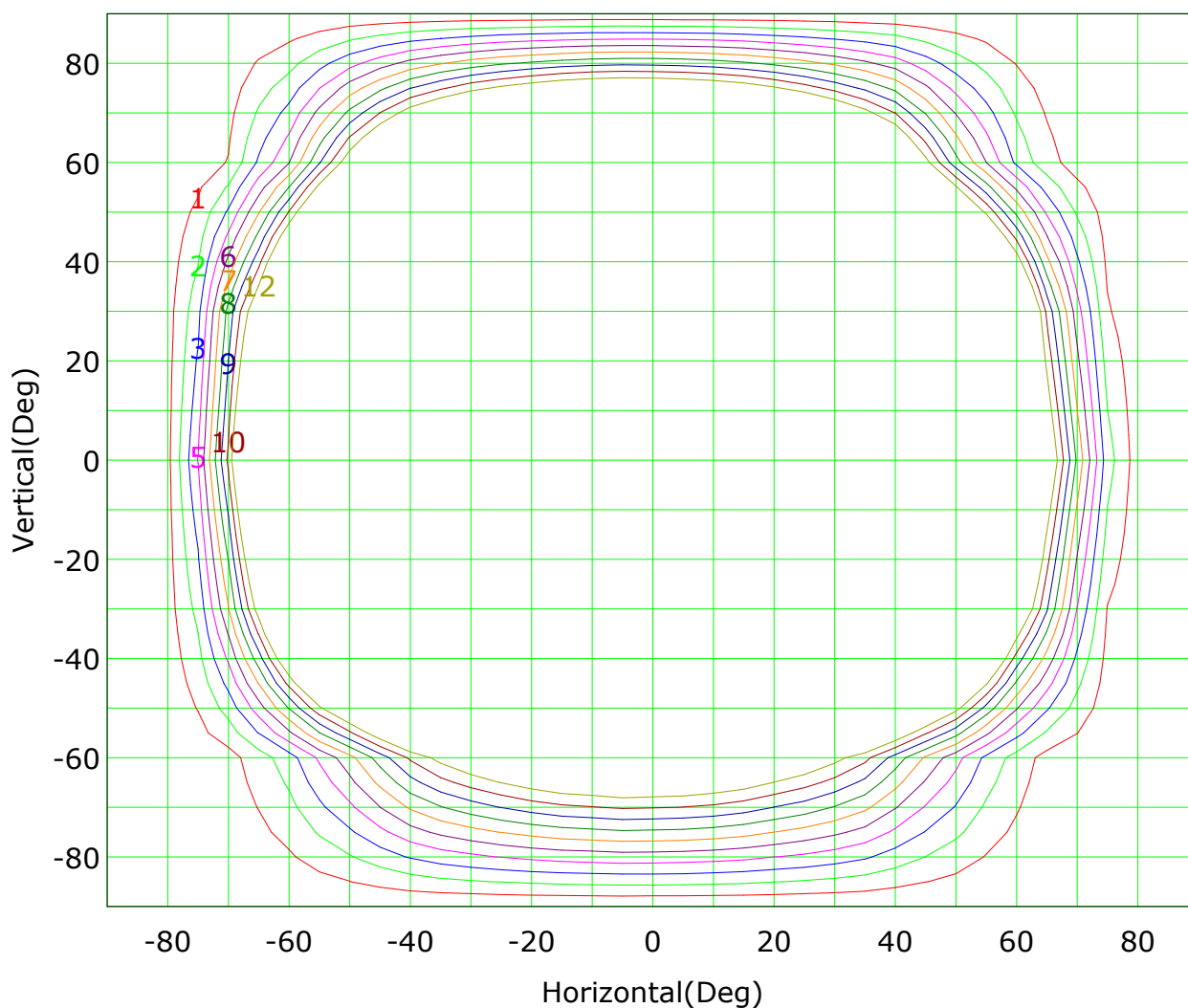
Test Device: GPM-1600L

Distance: 7.132 m

Humidity:

Inspector:

## Isocandela (rectangle)



Imax (100%): 58 cd

( 2%):	1 cd	( 4%):	2 cd
( 6%):	3 cd	( 8%):	5 cd
(10%):	6 cd	(12%):	7 cd
(14%):	8 cd	(16%):	9 cd
(18%):	10 cd	(20%):	12 cd

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: Z

Beta Plane (°):-90.0-90.0:1.0

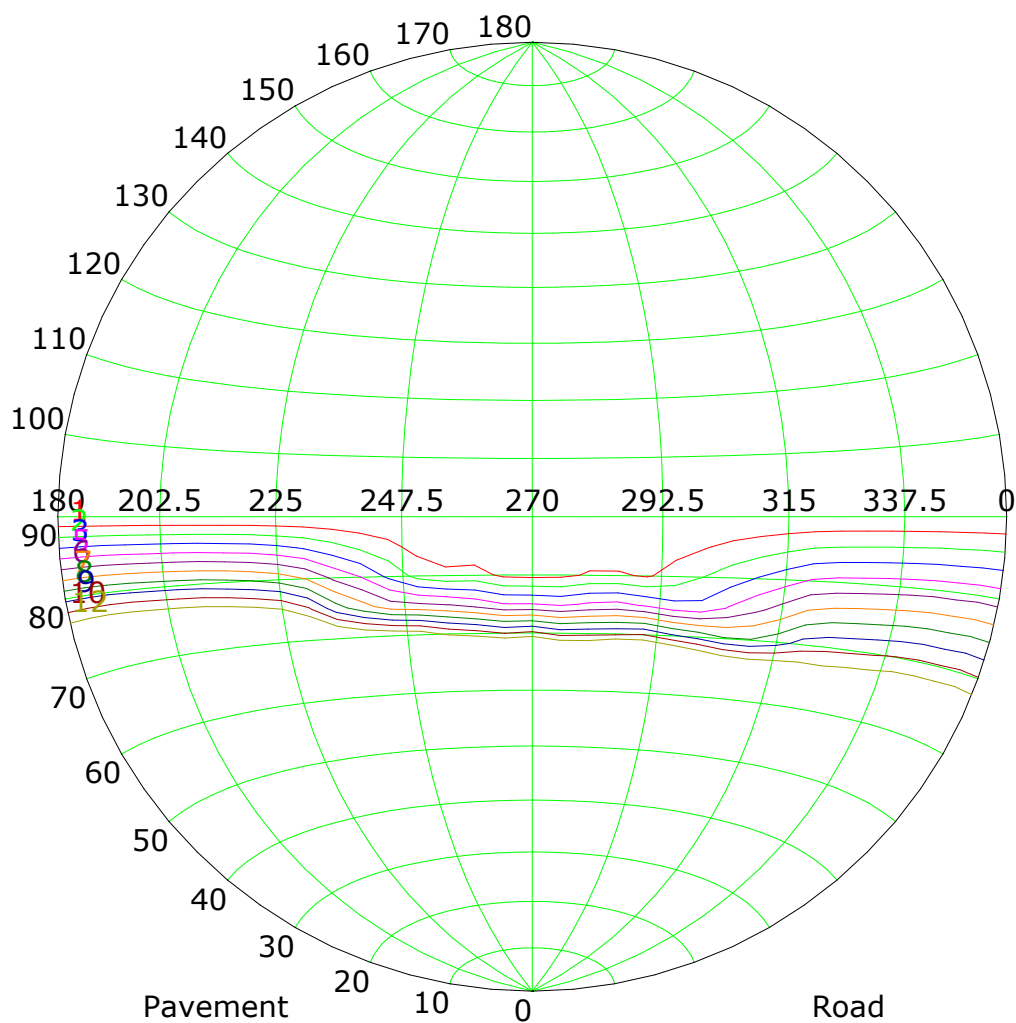
Test Device: GPM-1600L

Distance: 7.132 m

Humidity:

Inspector:

## Isocandela (sphere)



Imax (100%): 58 cd

( 2%):	1 cd	( 4%):	2 cd
( 6%):	3 cd	( 8%):	5 cd
(10%):	6 cd	(12%):	7 cd
(14%):	8 cd	(16%):	9 cd
(18%):	10 cd	(20%):	12 cd

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: Z

Beta Plane (°):-90.0-90.0:1.0

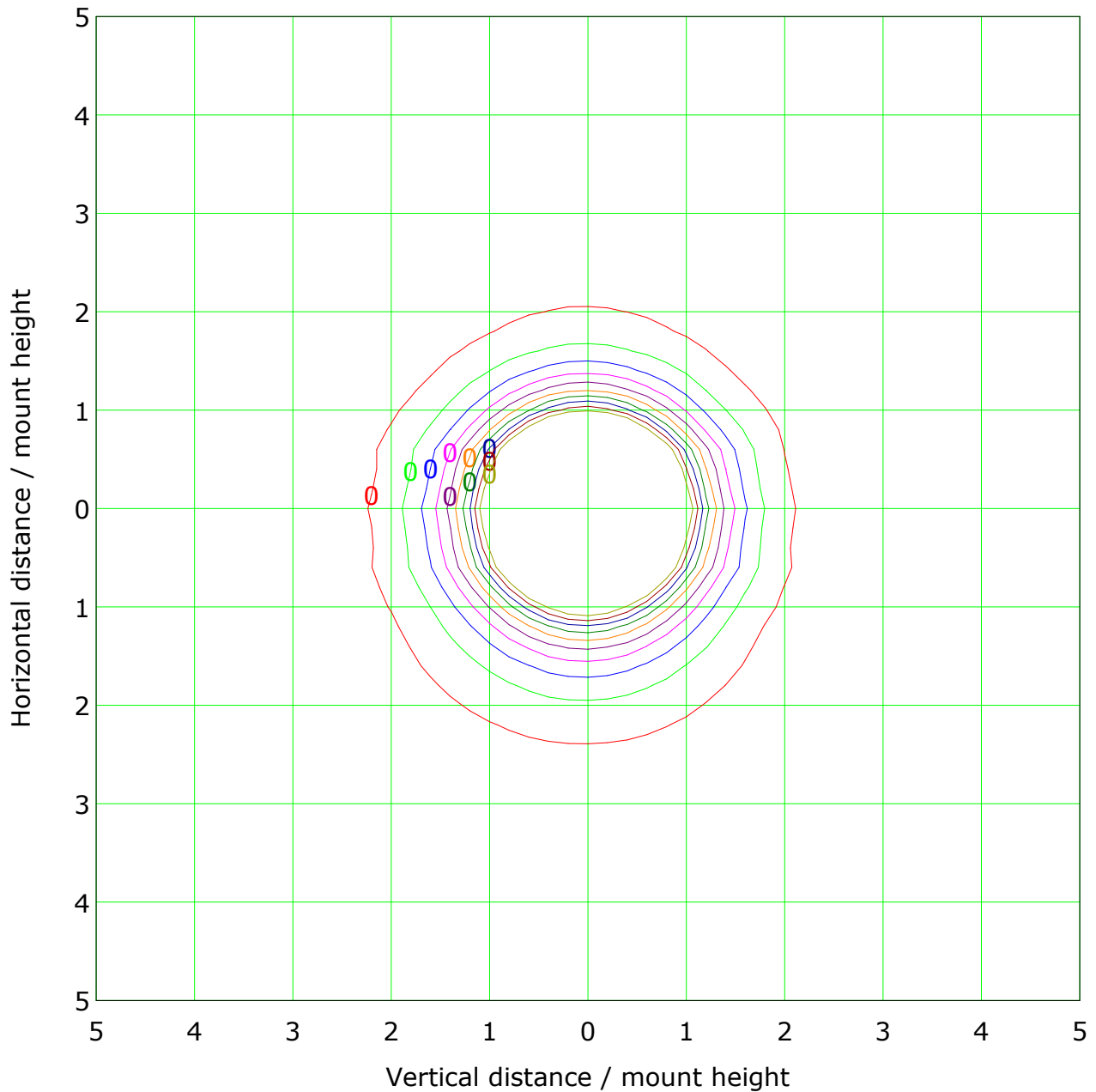
Test Device: GPM-1600L

Distance: 7.132 m

Humidity:

Inspector:

## IsoLux Plot



Mounting Height: 10.0m		Max Lux(100%): 0.6 lx	
( 2%):	0.0 lx	( 4%):	0.0 lx
( 6%):	0.0 lx	( 8%):	0.0 lx
( 10%):	0.1 lx	( 12%):	0.1 lx
( 14%):	0.1 lx	( 16%):	0.1 lx
( 18%):	0.1 lx	( 20%):	0.1 lx

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: Z

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

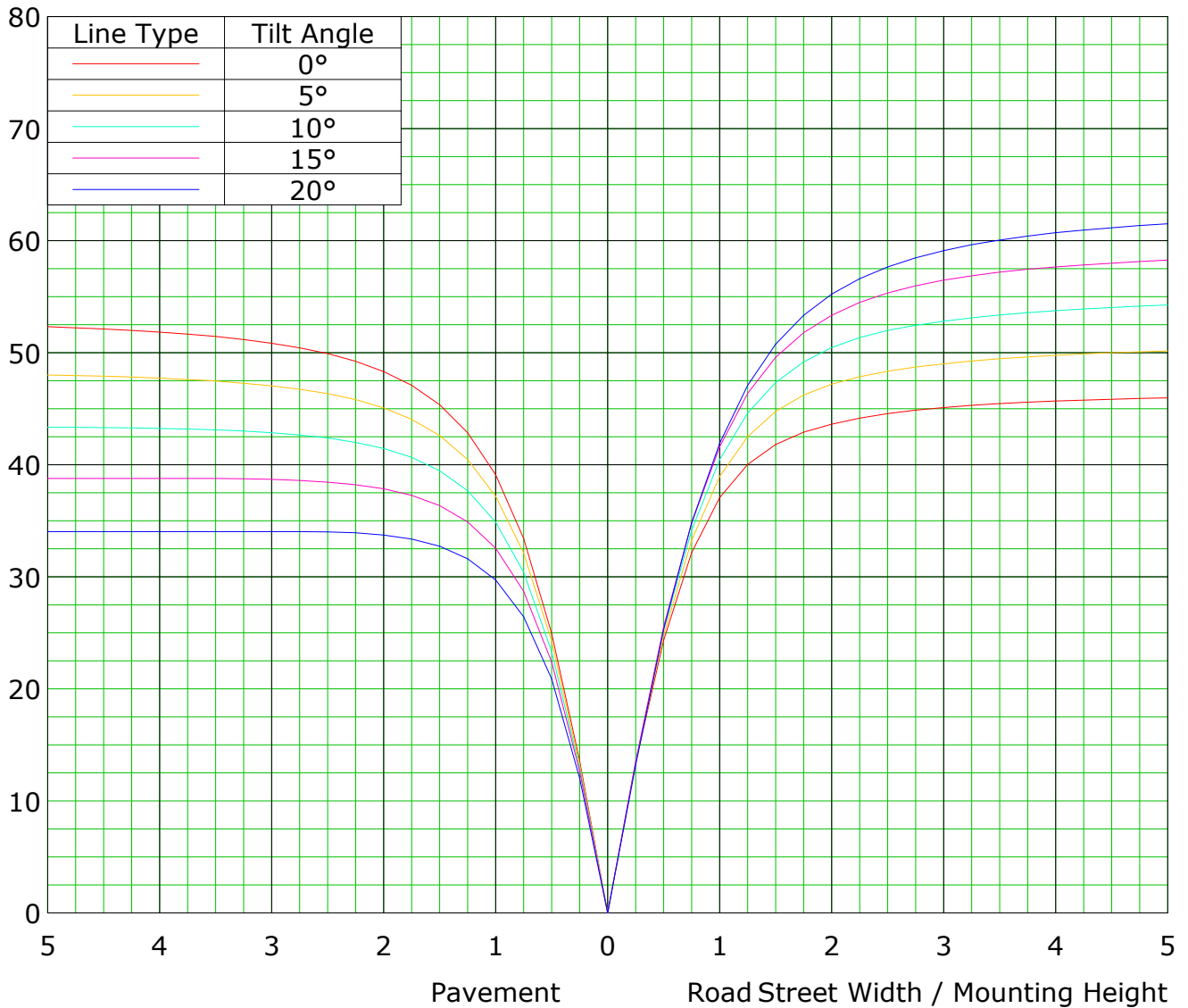
Distance: 7.132 m

Humidity:

Inspector:

## Roadway CU Curve

Efficiency(%)



B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: Z

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.132 m

Humidity:

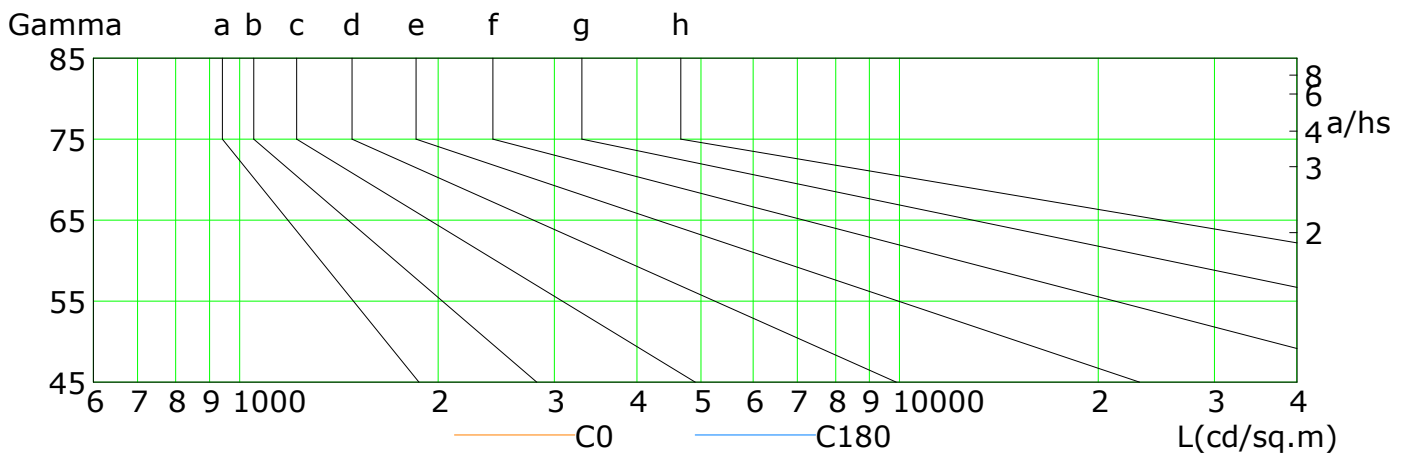
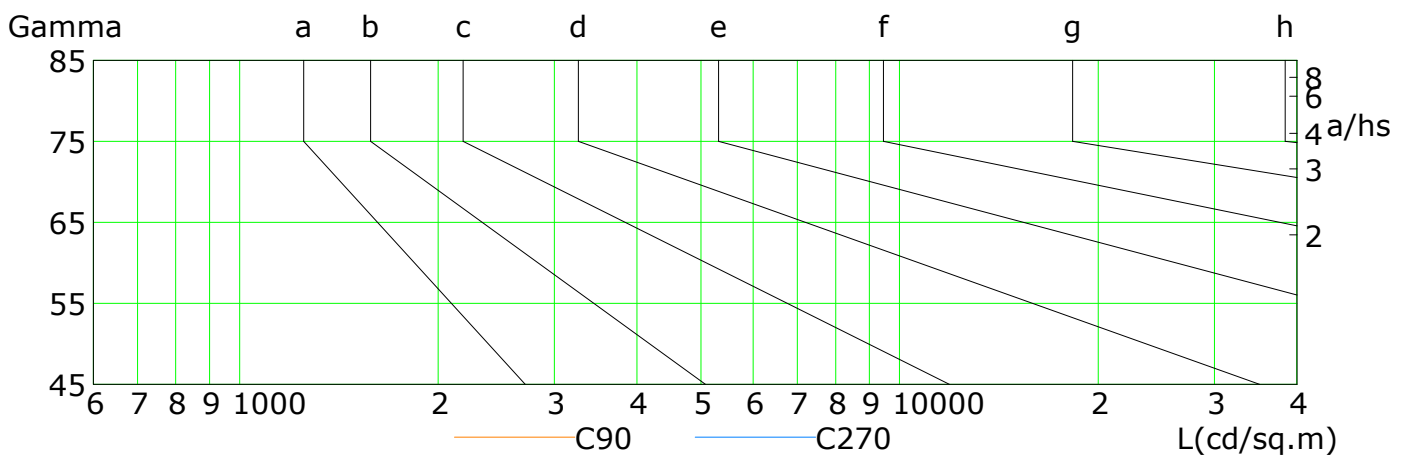
Inspector:



## 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	40	35	31	25	19	11	5	1	0
C90	32	26	21	16	13	11	8	5	3
C180	37	33	28	21	14	8	3	1	0
C270	39	35	31	27	22	18	13	9	5

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: Z

Beta Plane (°):-90.0-90.0:1.0

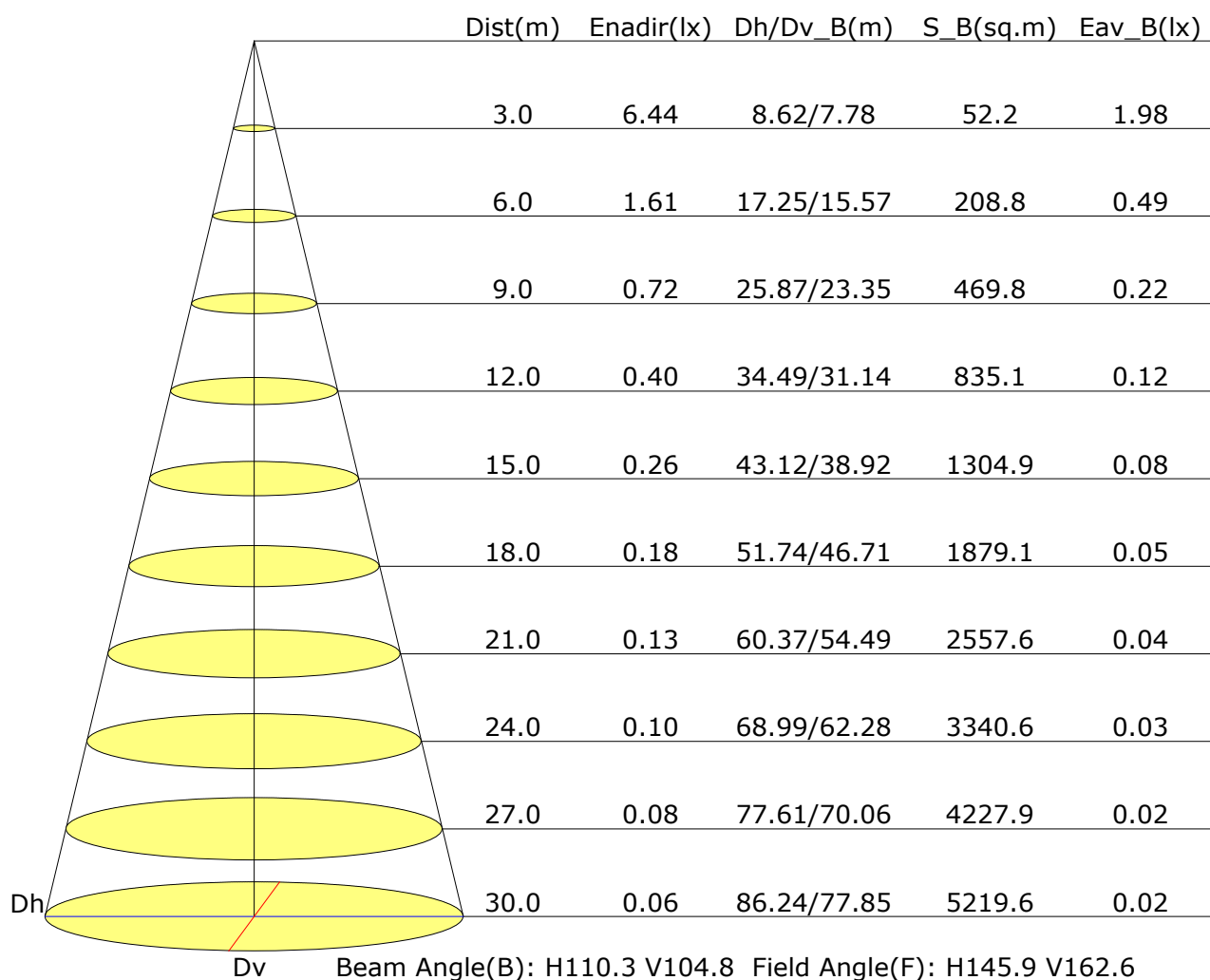
Test Device: GPM-1600L

Distance: 7.132 m

Humidity:

Inspector:

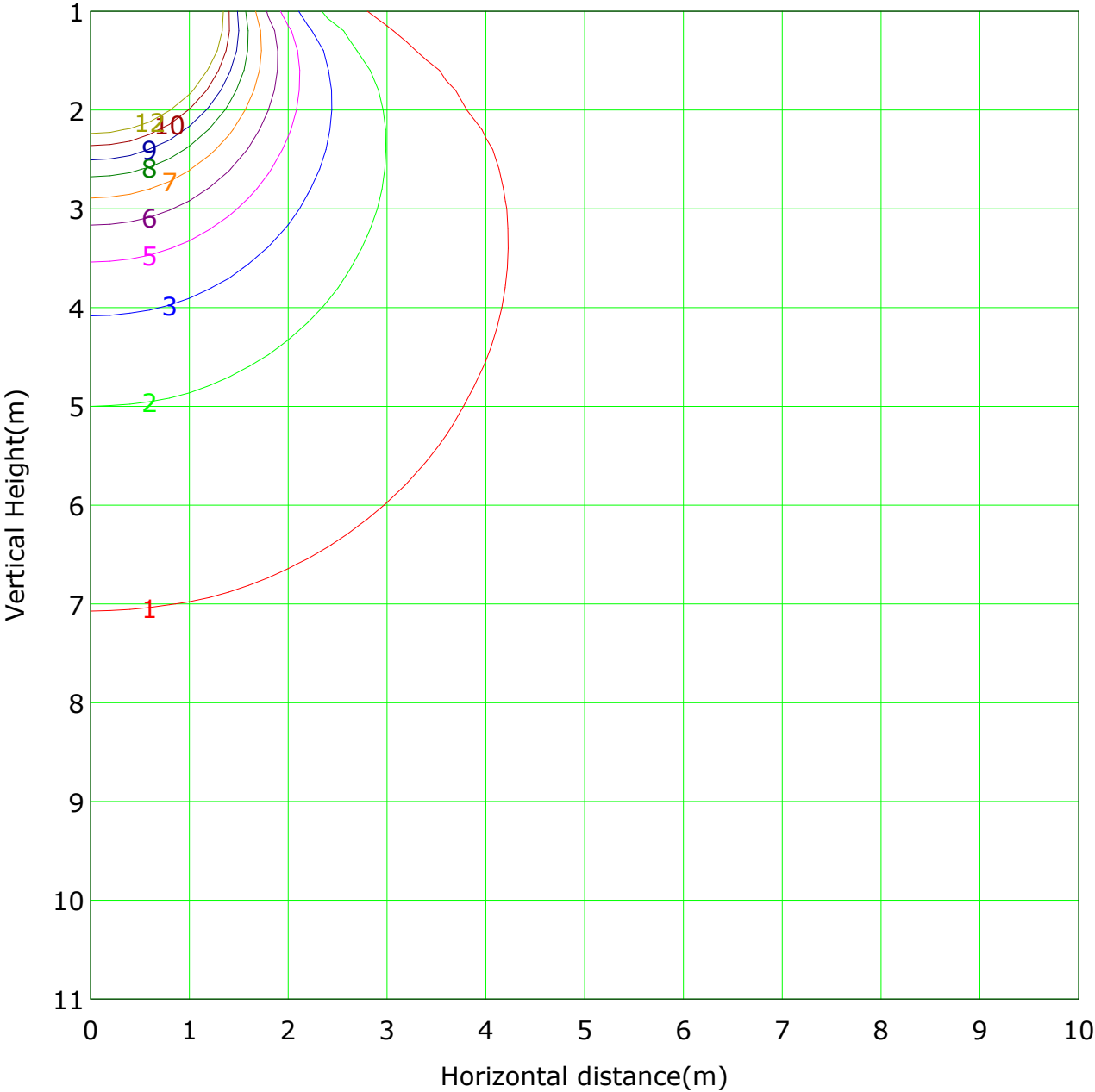
## Illuminance at a Distance



B Plane (°):-90.0-90.0: 30.0  
 Test Lab:  
 Test Type: TYPE B  
 Temperature:  
 Operator: Z

Beta Plane (°):-90.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 7.132 m  
 Humidity:  
 Inspector:

Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 11.0m	Max Lux: 58.0 lx
( 2%): 1.2 lx	( 4%): 2.3 lx	
( 6%): 3.5 lx	( 8%): 4.6 lx	
(10%): 5.8 lx	(12%): 7.0 lx	
(14%): 8.1 lx	(16%): 9.3 lx	
(18%): 10.4 lx	(20%): 11.6 lx	

B Plane (°):-90.0-90.0: 30.0  
Test Lab:  
Test Type: TYPE B  
Temperature:  
Operator: Z

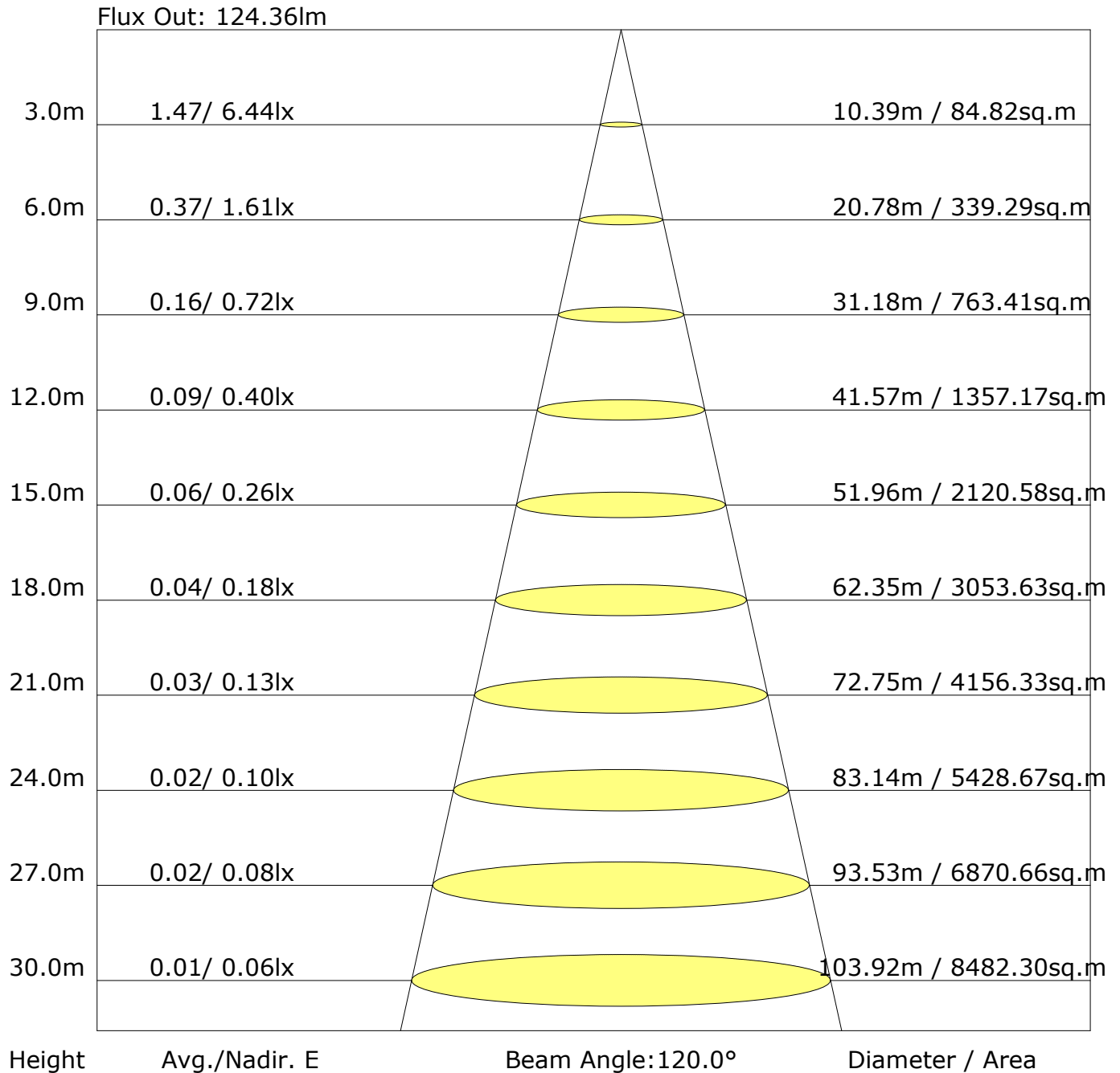
Beta Plane (°):-90.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 7.132 m  
Humidity:  
Inspector:

## Unit: lm

Horizontal plane

Beta Plane (°):-90.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 7.132 m  
Humidity:  
Inspector:

## The Average Illuminance Effective Figure



B Plane (°):-90.0-90.0: 30.0  
 Test Lab:  
 Test Type: TYPE B  
 Temperature:  
 Operator: Z

Beta Plane (°):-90.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 7.132 m  
 Humidity:  
 Inspector:

## UGR Table

反射率:											
天花板	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	
墙面	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3	
工作面	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
房间尺寸	横向					纵向					
X=2H Y=2H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	
3H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	
4H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	
6H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	
8H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	
12H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	
X=4H Y=2H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	
3H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	
4H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	
6H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	
8H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	
12H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	
X=8H Y=4H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	
6H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	
8H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	
12H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	
X=12H Y=4H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	
6H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	
8H	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	1.\$	

依据CIE Pub.190:2010计算,表格已按0lm光源光通量进行修正( $8\log(F/F_0) = -1.$$ ).

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: Z

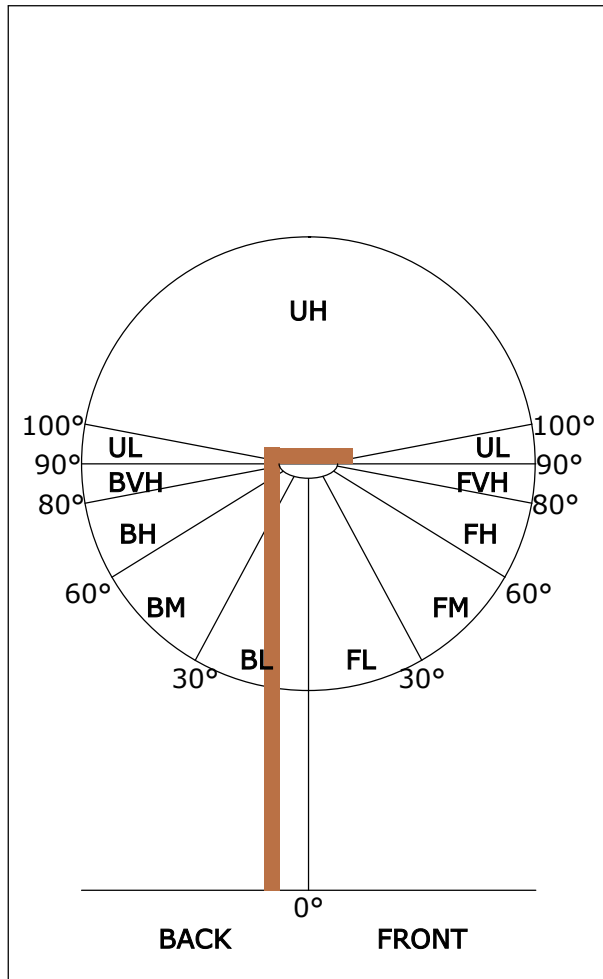
Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.132 m

Humidity:

Inspector:

**FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM**

ZONE	LUMENS	% LAMP LUMENS
FORWARD LIGHT	79	52.1
FL ( 0°-30°)	22	14.9
FM (30°-60°)	42	27.7
FH (60°-80°)	13	8.7
FVH (80°-90°)	1	0.8
BACK LIGHT	73	48.6
BL ( 0°-30°)	22	14.4
BM (30°-60°)	39	26.0
BH (60°-80°)	11	7.5
BVH (80°-90°)	1	0.7
UP LIGHT	0	0.0
UL (90°-100°)	0	0.0
UH (100°-180°)	0	0.0
TRAPPED LIGHT	NA	NA

BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B0 U1 G0
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B0 U1 G0

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: Z

Beta Plane (°):-90.0-90.0:1.0

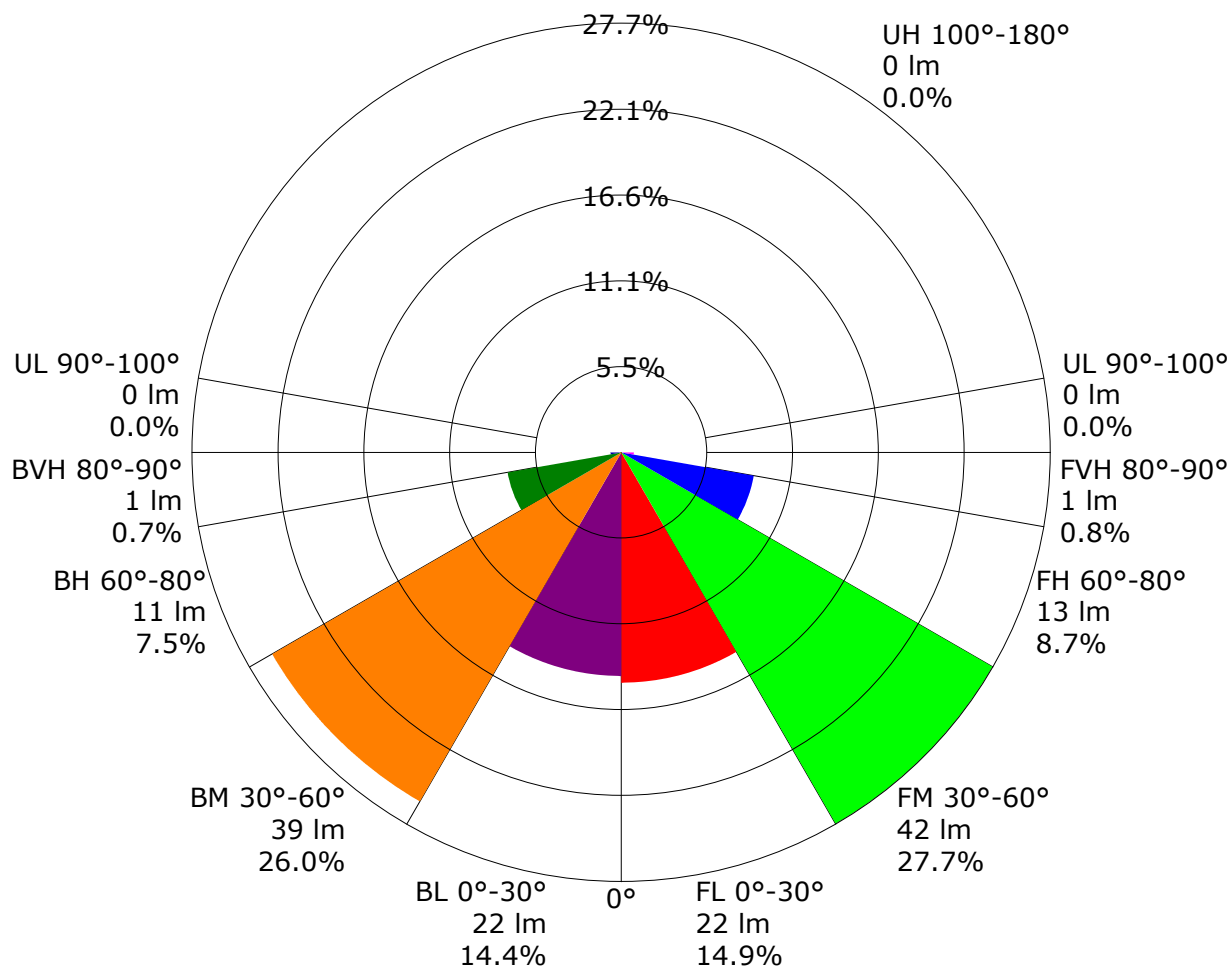
Test Device: GPM-1600L

Distance: 7.132 m

Humidity:

Inspector:

## LCS Graph



**Back Light**

**Forward Light**

Scale= MAX LCS%

Trapped Light:NA,NA

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: Z

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.132 m

Humidity:

Inspector:



## Utilisation Factor Table(Floor cavity)

Utilisation Factors UF(F)			SHR NOM = 1.25									
Room Reflectance			Room Index(RI)									
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	
0.70	0.50	0.20	0.58	0.69	0.77	0.82	0.89	0.94	0.97	1.02	1.04	
	0.30		0.51	0.62	0.70	0.75	0.84	0.89	0.93	0.98	1.01	
	0.20		0.45	0.56	0.64	0.70	0.79	0.85	0.89	0.95	0.98	
0.50	0.50	0.20	0.57	0.67	0.74	0.79	0.86	0.91	0.94	0.98	1.00	
	0.30		0.50	0.61	0.68	0.74	0.81	0.86	0.90	0.95	0.98	
	0.20		0.45	0.56	0.63	0.69	0.77	0.83	0.87	0.92	0.95	
0.30	0.50	0.20	0.55	0.65	0.72	0.77	0.83	0.88	0.90	0.94	0.96	
	0.30		0.49	0.60	0.67	0.72	0.79	0.84	0.87	0.92	0.94	
	0.20		0.45	0.55	0.63	0.68	0.76	0.81	0.85	0.89	0.92	
0.00	0.00	0.00	0.42	0.53	0.60	0.65	0.73	0.77	0.81	0.85	0.88	
Rating:10W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: Z

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.132 m

Humidity:

Inspector:

## Utilisation Factor Table(Wall)

Utilisation Factors UF(W)			SHR NOM = 1.25									
Room Reflectance			Room Index(RI)									
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	
0.70	0.50	0.20	0.96	0.78	0.65	0.56	0.44	0.36	0.31	0.24	0.19	
	0.30		0.80	0.67	0.57	0.50	0.40	0.33	0.29	0.22	0.18	
	0.20		0.69	0.58	0.51	0.45	0.37	0.31	0.27	0.21	0.17	
0.50	0.50	0.20	0.93	0.75	0.63	0.54	0.42	0.38	0.29	0.22	0.18	
	0.30		0.78	0.65	0.55	0.48	0.39	0.32	0.27	0.21	0.17	
	0.20		0.68	0.57	0.50	0.44	0.36	0.30	0.26	0.20	0.17	
0.30	0.50	0.20	0.90	0.72	0.60	0.52	0.40	0.33	0.28	0.21	0.17	
	0.30		0.77	0.63	0.54	0.47	0.37	0.31	0.26	0.20	0.17	
	0.20		0.67	0.57	0.49	0.43	0.35	0.29	0.25	0.19	0.16	
0.00	0.00	0.00	0.57	0.47	0.39	0.34	0.27	0.22	0.19	0.14	0.12	
Rating:10W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

B Plane (°):-90.0-90.0: 30.0  
 Test Lab:  
 Test Type: TYPE B  
 Temperature:  
 Operator: Z

Beta Plane (°):-90.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 7.132 m  
 Humidity:  
 Inspector:

## Utilisation Factor Table(Ceiling cavity)

Utilisation Factors UF(C)			SHR NOM = 1.25									
Room Reflectance			Room Index(RI)									
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	
0.70	0.50	0.20	0.16	0.17	0.18	0.19	0.19	0.20	0.20	0.21	0.21	
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19	
	0.20		0.05	0.06	0.08	0.09	0.11	0.13	0.14	0.16	0.17	
0.50	0.50	0.20	0.15	0.16	0.17	0.18	0.19	0.19	0.20	0.20	0.20	
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.16	0.18	0.18	
	0.20		0.05	0.06	0.08	0.09	0.11	0.13	0.14	0.15	0.16	
0.30	0.50	0.20	0.15	0.16	0.17	0.17	0.18	0.18	0.19	0.19	0.20	
	0.30		0.09	0.10	0.12	0.13	0.14	0.15	0.16	0.17	0.18	
	0.20		0.05	0.06	0.08	0.09	0.11	0.12	0.13	0.15	0.16	
0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Rating:10W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

B Plane (°):-90.0-90.0: 30.0  
 Test Lab:  
 Test Type: TYPE B  
 Temperature:  
 Operator: Z

Beta Plane (°):-90.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 7.132 m  
 Humidity:  
 Inspector:

## Zonal Lumen

[illegible]

B Plane (°):-90.0-90.0: 30.0  
Test Lab:  
Test Type: TYPE B  
Temperature:  
Operator: Z

Beta Plane (°):-90.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 7.132 m  
Humidity:  
Inspector:

## **Zonal Lumen (Continue 1)**

cone flux(90°): 86.41 lm

%lum = 57.3%  
%lamp = 57.3%

cone flux(120°): 124.36 lm

%lum = 82.4%  
%lamp = 82.4%

---

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: Z

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.132 m

Humidity:

Inspector:

## Unit: cd

Inspector:

## Unit: cd

Inspector:

## Unit: cd

Inspector:



## Unit: cd

Inspector:

## Unit: cd

Inspector:

## Unit: cd

Inspector:

## Unit: cd

Inspector:

## Unit: cd

B Plane (°):-90.0-90.0: 30.0	Beta Plane (°):-90.0-90.0:1.0
Test Lab:	Test Device: GPM-1600L
Test Type: TYPE B	Distance: 7.132 m
Temperature:	Humidity:
Operator: Z	Inspector:

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.132 m

Humidity:

Inspector:

Inspector:

## Unit: cd

Inspector:

## Unit: cd

Inspector:



## Unit: cd

Inspector:

## Unit: cd

Inspector:

## Unit: cd

Inspector:

## Unit: cd

Inspector:

## Unit: cd

Inspector:

## Unit: cd

Inspector:

## Unit: cd

Unit: cd

B Plane (°):-90.0-90.0: 30.0	Beta Plane (°):-90.0-90.0:1.0
Test Lab:	Test Device: GPM-1600L
Test Type: TYPE B	Distance: 7.132 m
Temperature:	Humidity:
Operator: Z	Inspector:

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.132 m

Humidity:

Inspector:

## Unit: cd

Inspector:



## LED Average Luminance Report

Avg.L	cd/m <sup>2</sup>
L 0-180(65) av	1.#J
L 0-180(75) av	1.#J
L 0-180(85) av	1.#J
L 90-270(65) av	1.#J
L 90-270(75) av	1.#J
L 90-270(85) av	1.#J
L 45(65) av	1.#J
L 45(75) av	1.#J
L 45(85) av	1.#J

Standard: GB/T 29293-2012

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: Z

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.132 m

Humidity:

Inspector: