

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: 0.176 A

Power Factor: 0.989

Luminaire Description: E002EI-30W-3000K

Lamp Description: SMD

Lumens per Lamp:

Luminous Width (mm):

Voltage: 230.00 V

Power: 31.31 W

## Photometric Results

IES NEMA Type: 7H x 7V

Measurement Flux: 2717.8 lm

Field Lumens: 2674.5 lm

Field Angle: H139.7, V164.1

Luminaire Efficacy Rating (LER): 86.85

Max. Intensity: 1017.56 cd

Total Rated Lamp Lumens: 2717.8 lm

Efficiency: 100%

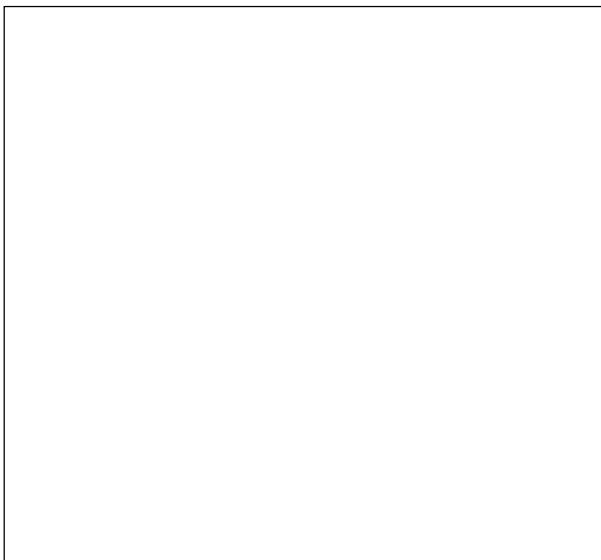
Field Efficiency: 98.41%

Beam Angle: H114.7, V105.0

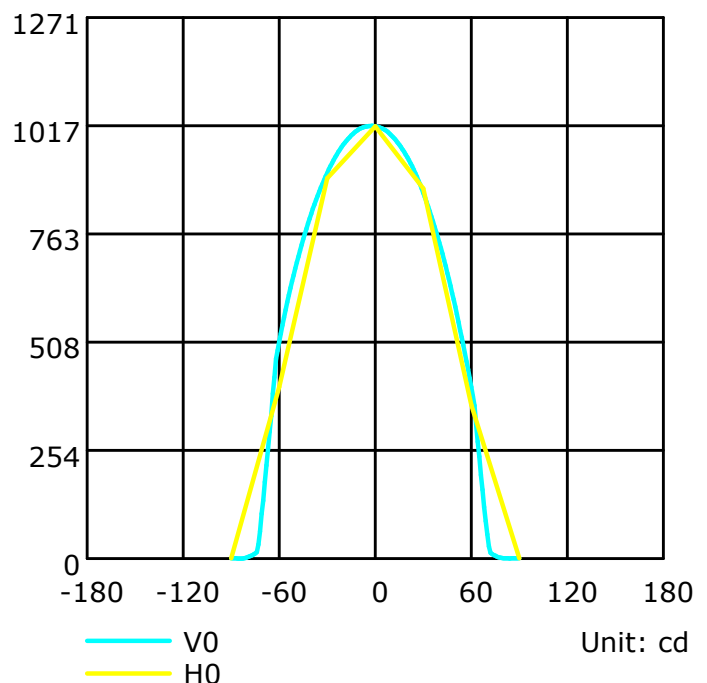
C0r0 Intensity: 1016.45 cd

Pos of Max. Intensity: H0 V-2

Picture Of Luminaire



Luminous Intensity Distribution Curve



B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator:

Beta Plane (°):-90.0-90.0:1.0

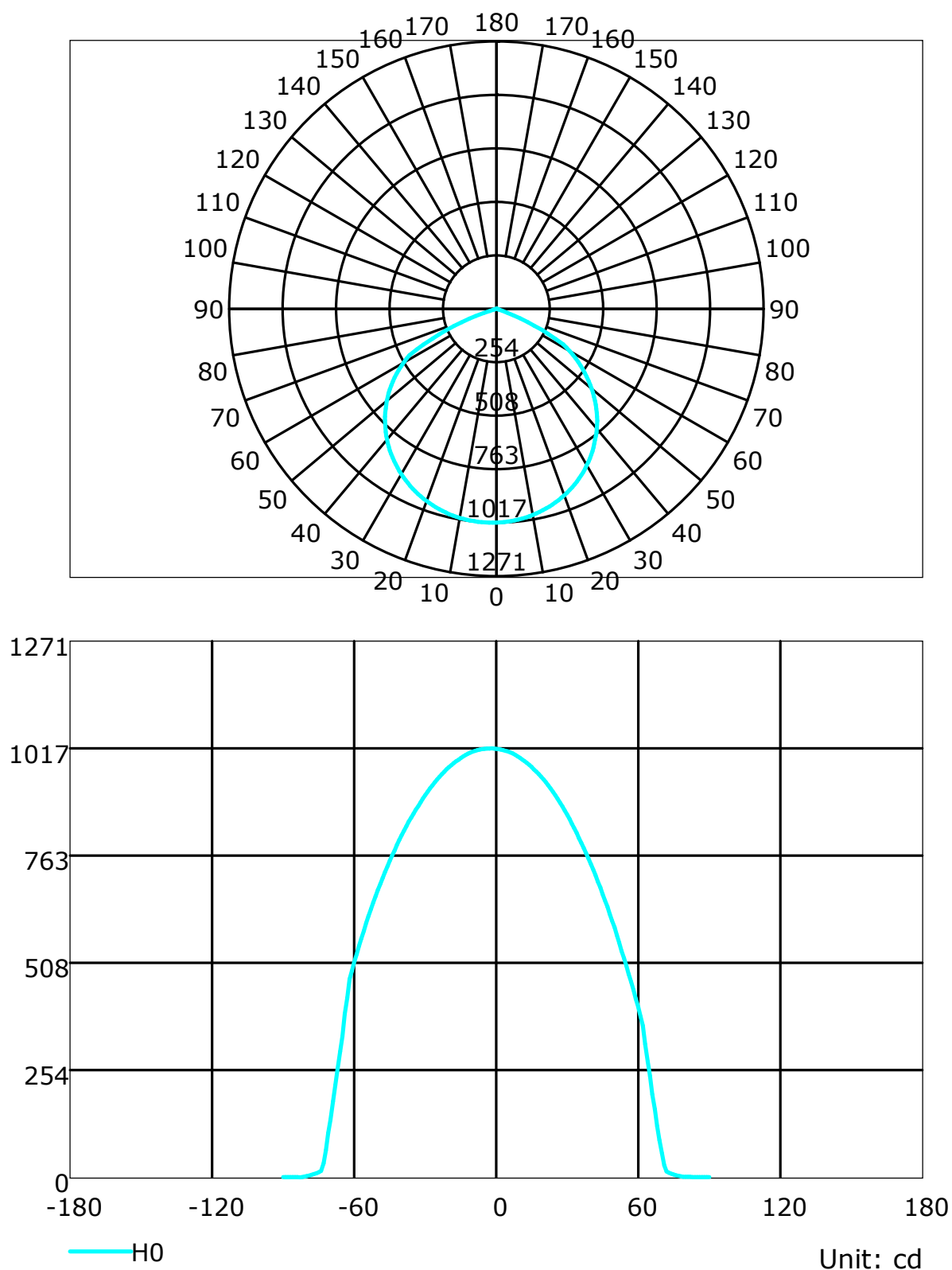
Test Device: GPM-1600L

Distance: 7.175 m [K=1.0000]

Humidity:

Inspector:

## Luminous Intensity Distribution Curve



B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator:

Beta Plane (°):-90.0-90.0:1.0

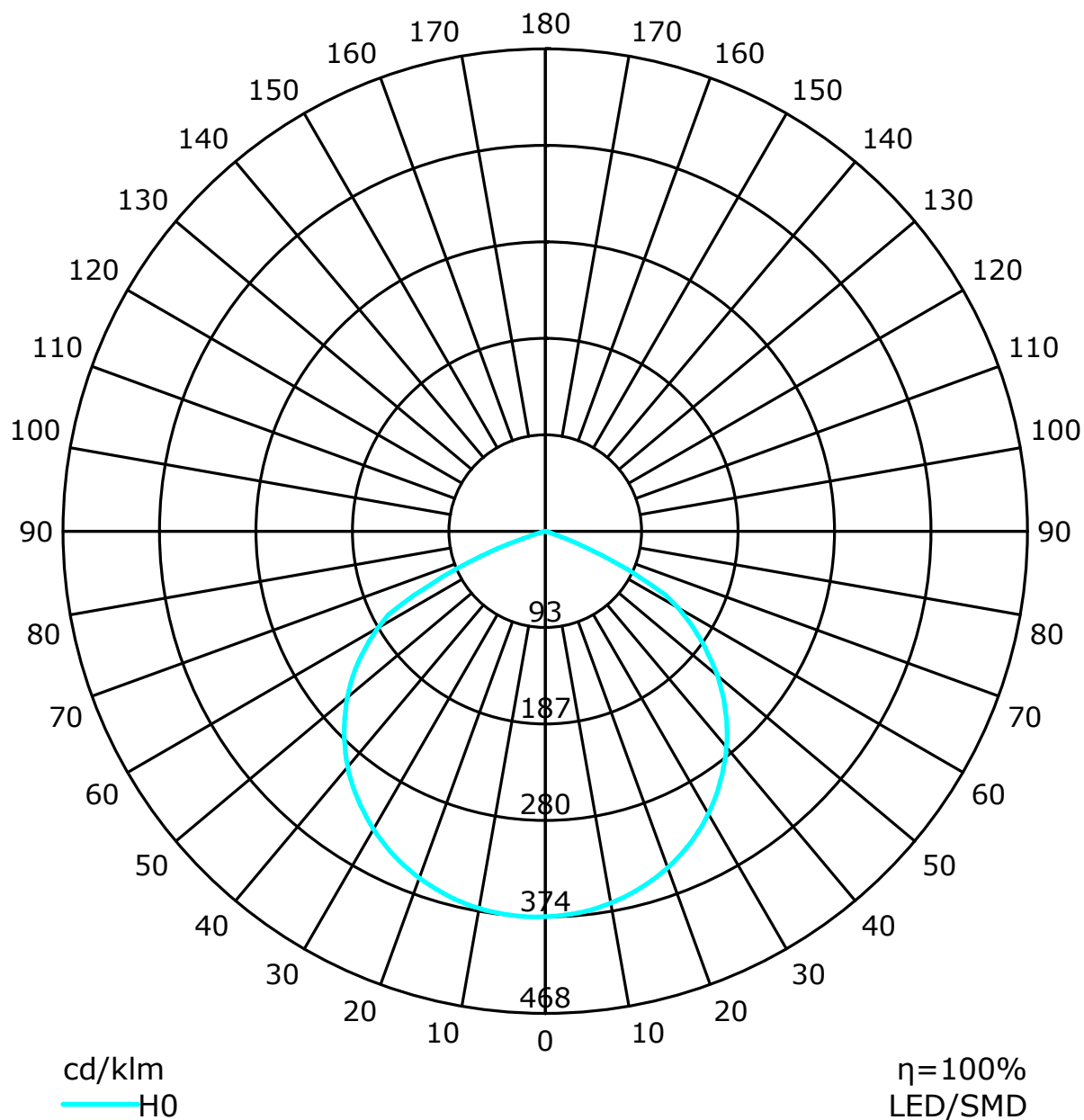
Test Device: GPM-1600L

Distance: 7.175 m [K=1.0000]

Humidity:

Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



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

Beta Plane (°):-90.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 7.175 m [K=1.0000]  
Humidity:  
Inspector:

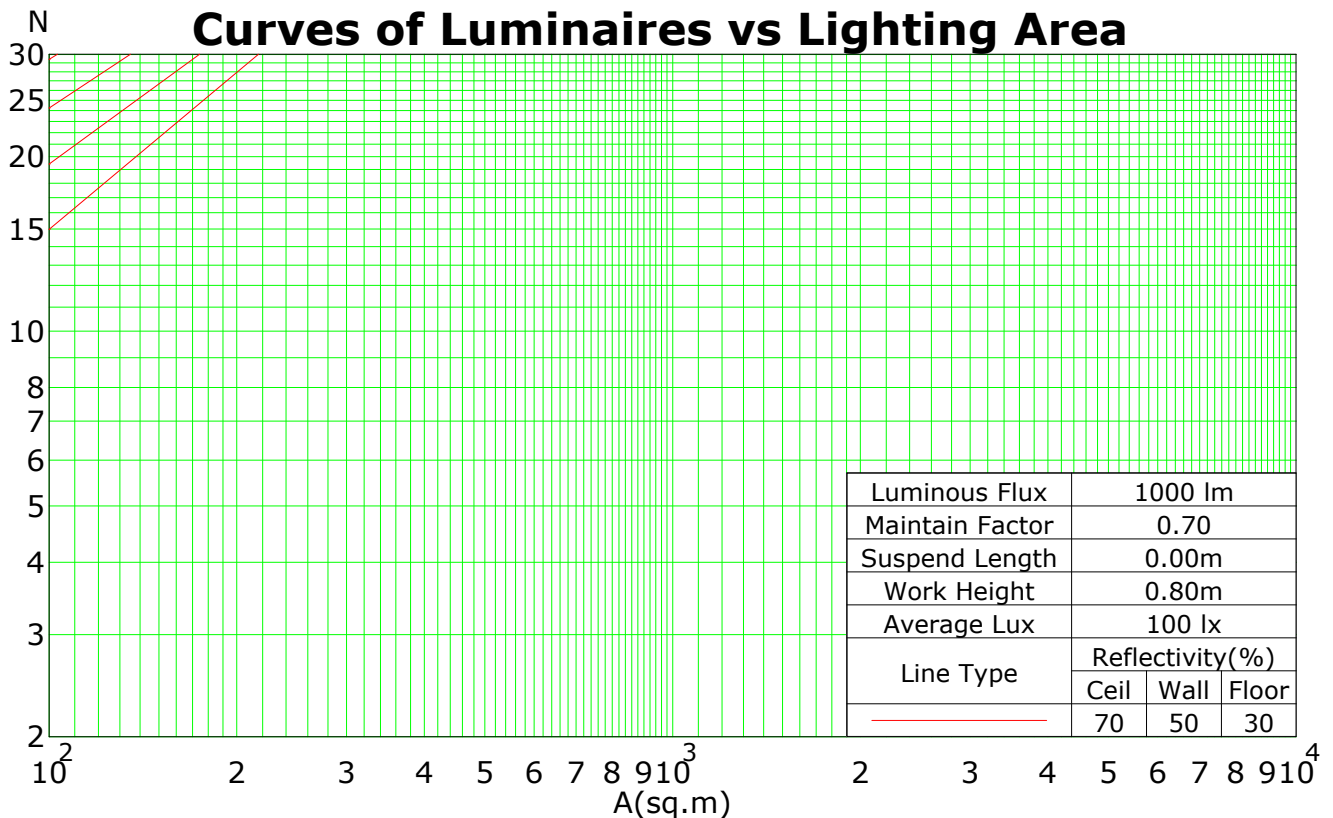
## Coefficients Of Utilization - Zonal Cavity Method

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	0.96	0.98	0.95	0.93	0.95	0.92	0.90	0.91	0.89	0.87	0.85
2	1.00	0.92	0.86	0.80	0.97	0.90	0.84	0.79	0.87	0.82	0.77	0.83	0.79	0.75	0.80	0.77	0.74	0.72
3	0.91	0.81	0.73	0.67	0.89	0.80	0.72	0.66	0.77	0.70	0.65	0.74	0.69	0.64	0.71	0.67	0.63	0.61
4	0.84	0.72	0.64	0.57	0.82	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	0.64	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	0.61	0.48	0.40	0.34	0.60	0.47	0.39	0.34	0.46	0.39	0.34	0.45	0.38	0.33	0.44	0.38	0.33	0.31
9	0.57	0.44	0.36	0.30	0.56	0.44	0.36	0.30	0.42	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	0.27	0.38	0.32	0.27	0.37	0.31	0.27	0.25

Spacing Criteria (0-180): 1.29

Spacing Criteria (90-270): 1.27

Spacing Criteria (Diagonal): 1.38



B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator:

Beta Plane (°):-90.0-90.0:1.0

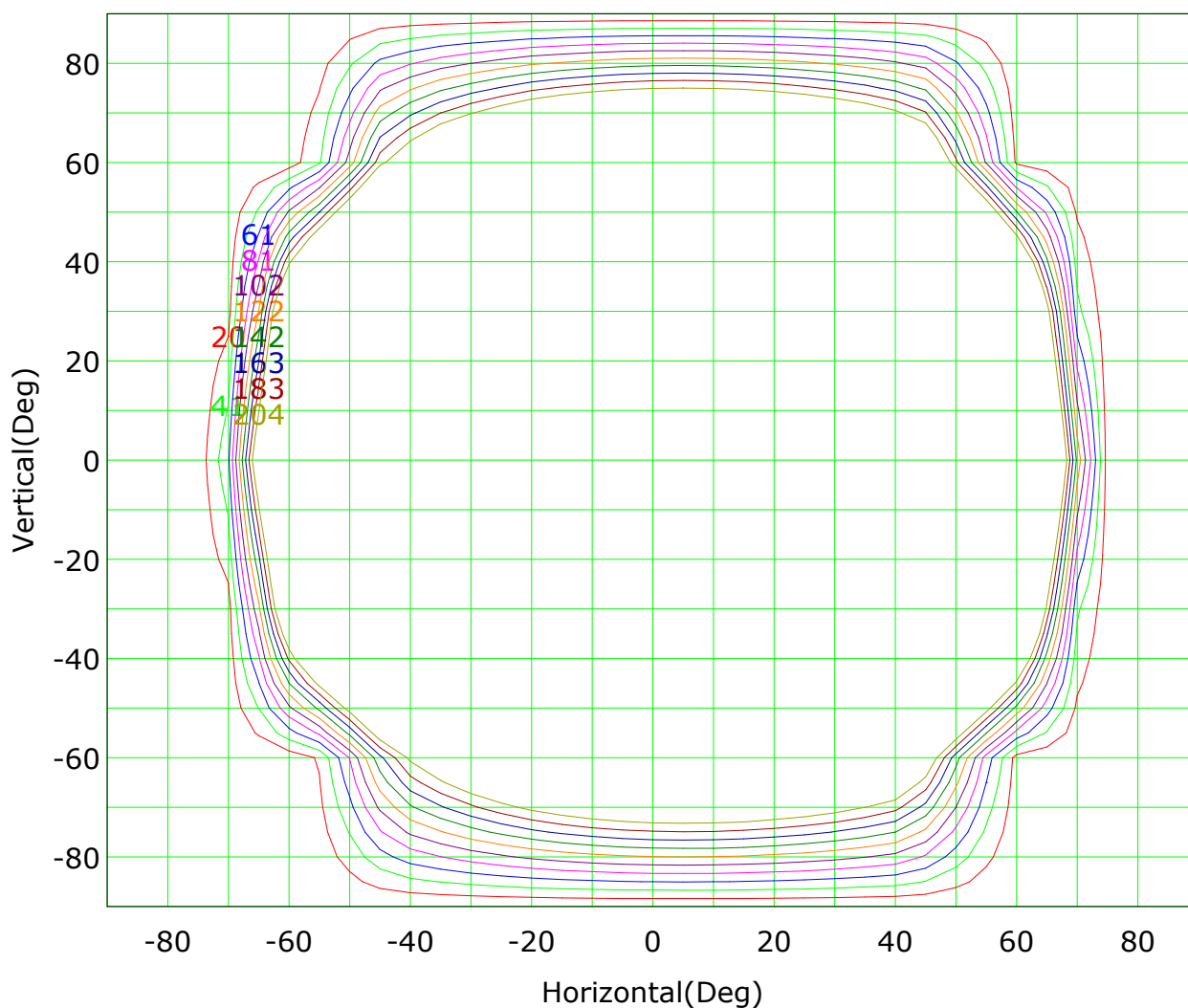
Test Device: GPM-1600L

Distance: 7.175 m [K=1.0000]

Humidity:

Inspector:

## Isocandela (rectangle)



Imax (100%): 1018 cd

( 2%): 20 cd	( 4%): 41 cd
( 6%): 61 cd	( 8%): 81 cd
(10%): 102 cd	(12%): 122 cd
(14%): 142 cd	(16%): 163 cd
(18%): 183 cd	(20%): 204 cd

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator:

Beta Plane (°):-90.0-90.0:1.0

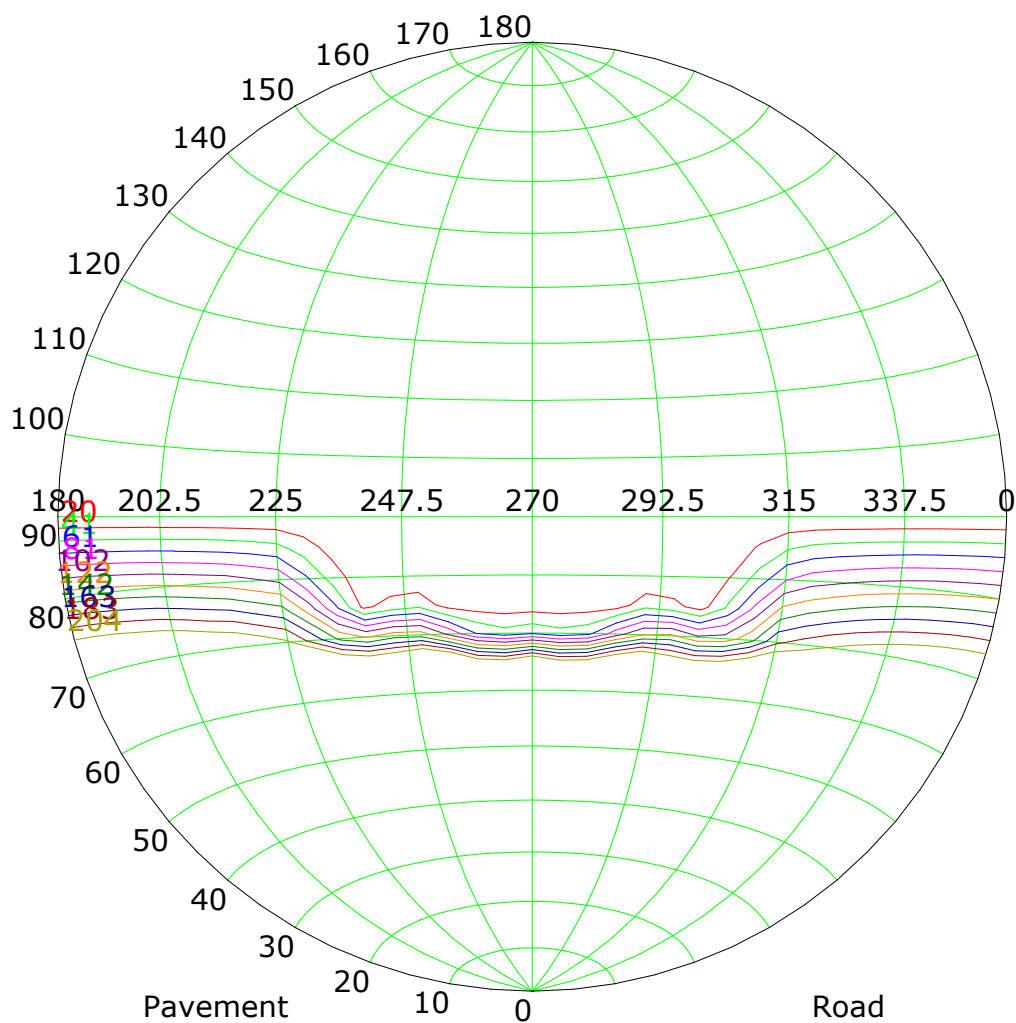
Test Device: GPM-1600L

Distance: 7.175 m [K=1.0000]

Humidity:

Inspector:

## Isocandela (sphere)



Imax (100%): 1018 cd

( 2%): 20 cd	( 4%): 41 cd
( 6%): 61 cd	( 8%): 81 cd
( 10%): 102 cd	( 12%): 122 cd
( 14%): 142 cd	( 16%): 163 cd
( 18%): 183 cd	( 20%): 204 cd

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator:

Beta Plane (°):-90.0-90.0:1.0

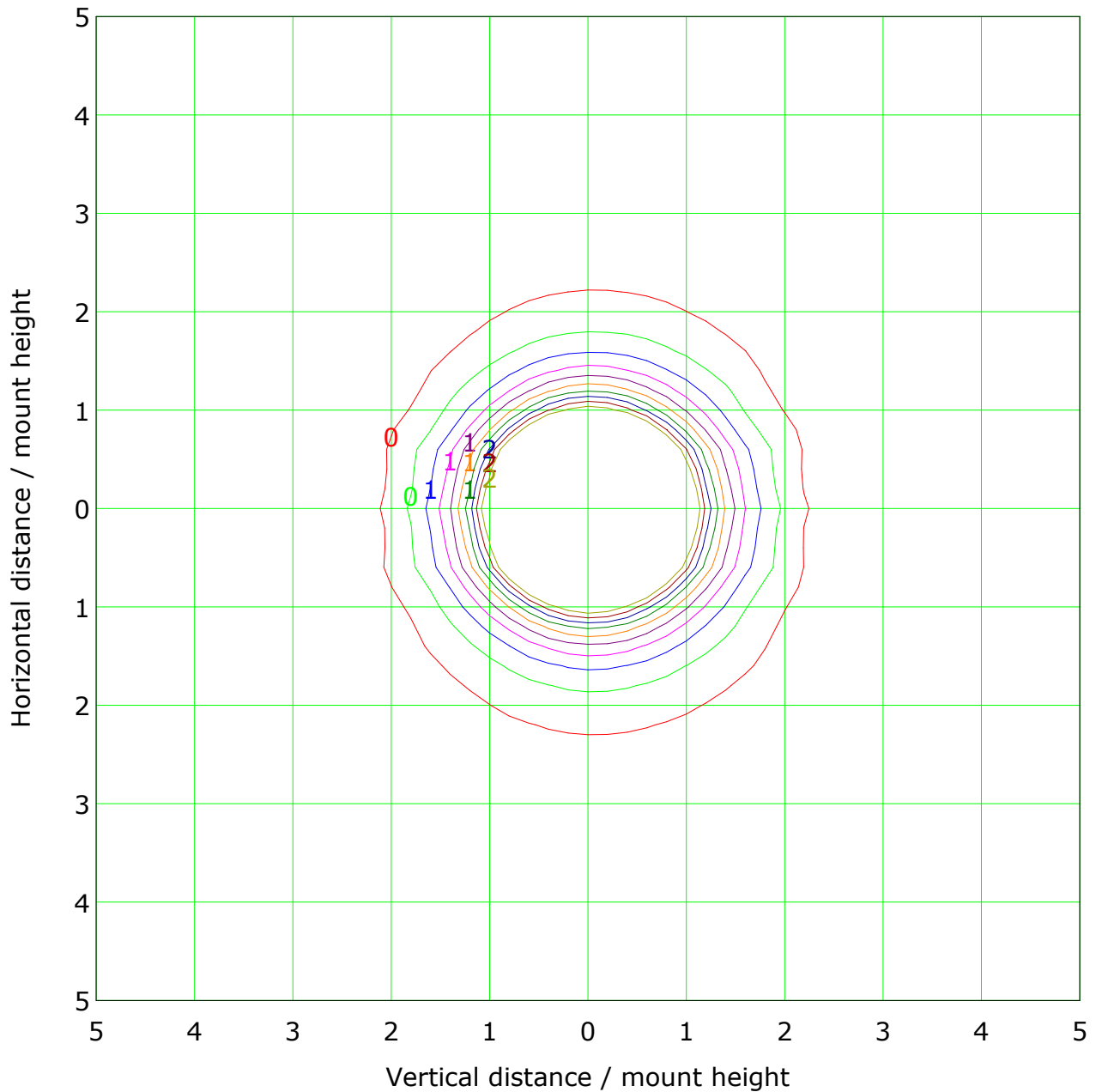
Test Device: GPM-1600L

Distance: 7.175 m [K=1.0000]

Humidity:

Inspector:

## IsoLux Plot



Mounting Height: 10.0m    Max Lux(100%): 10.2 lx	
( 2%): 0.2 lx	( 4%): 0.4 lx
( 6%): 0.6 lx	( 8%): 0.8 lx
(10%): 1.0 lx	(12%): 1.2 lx
(14%): 1.4 lx	(16%): 1.6 lx
(18%): 1.8 lx	(20%): 2.0 lx

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator:

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

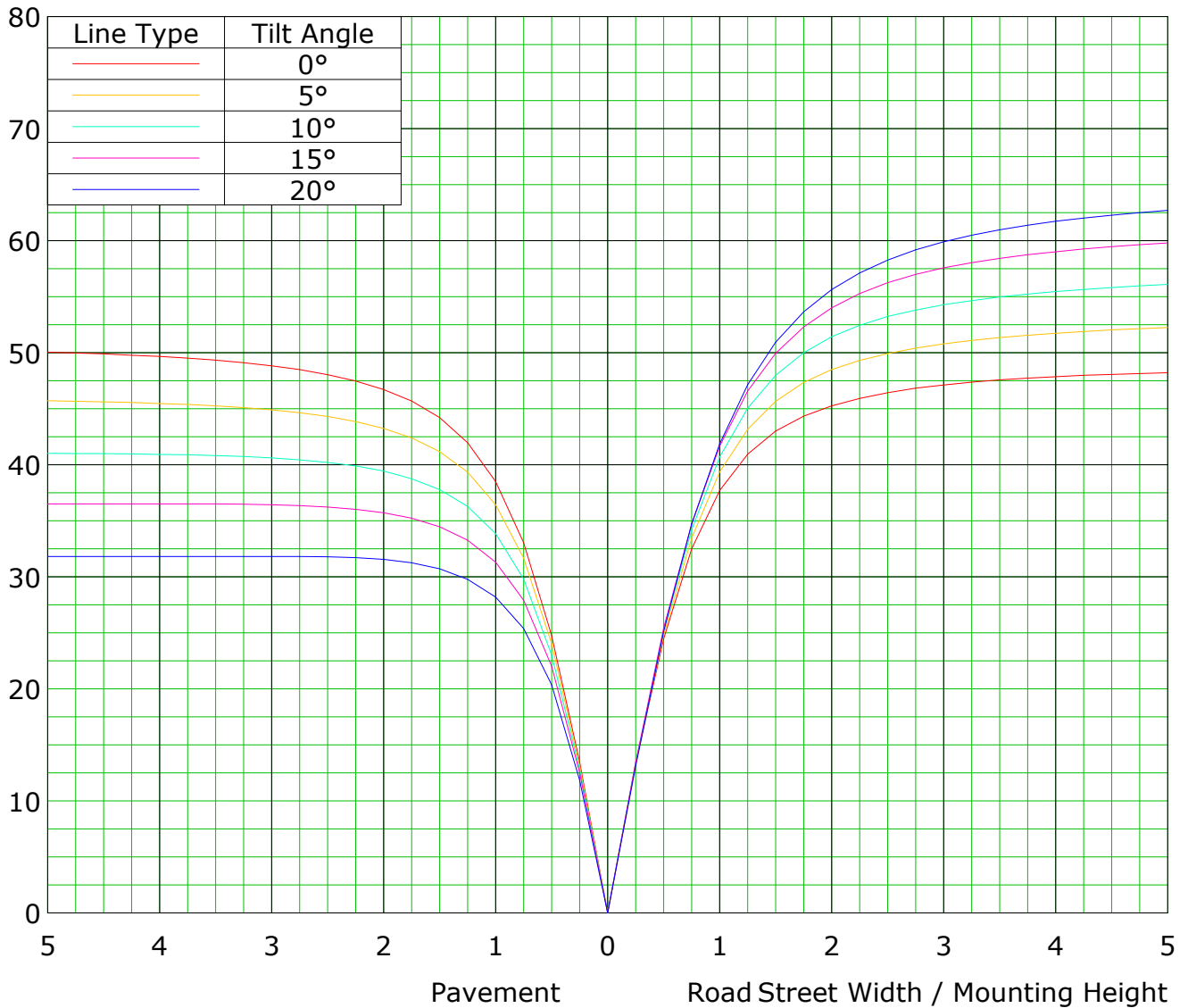
Distance: 7.175 m [K=1.0000]

Humidity:

Inspector:

## Roadway CU Curve

Efficiency(%)



B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator:

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.175 m [K=1.0000]

Humidity:

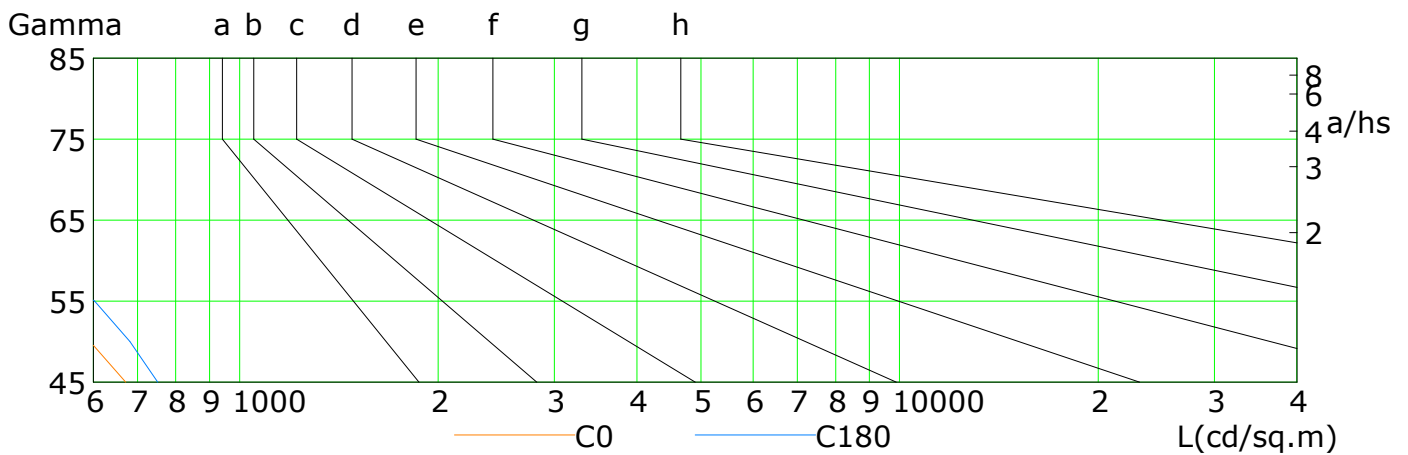
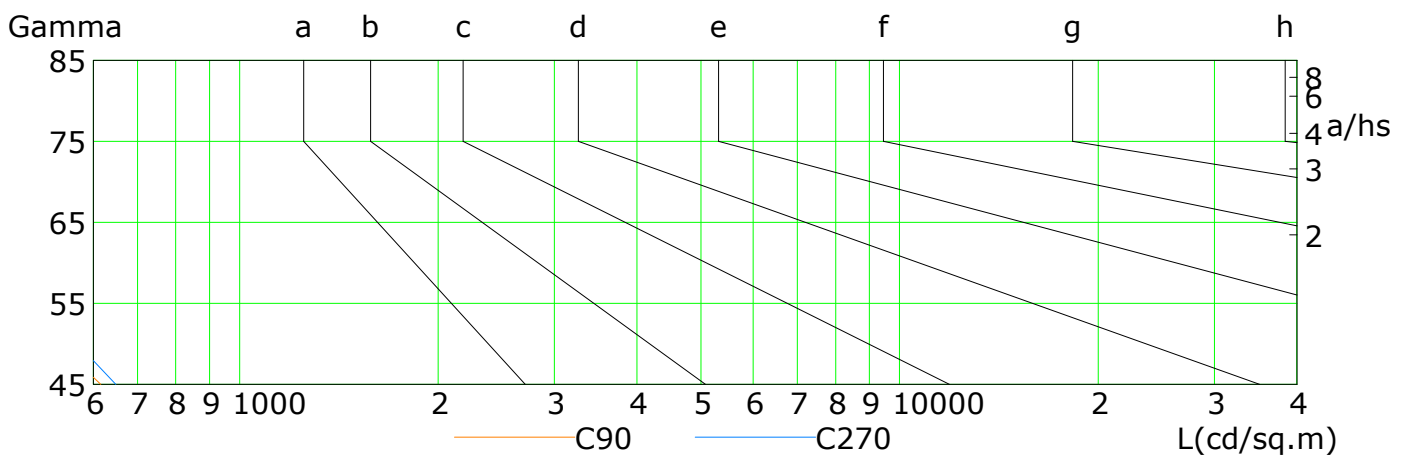
Inspector:



## 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	672	593	502	404	241	57	7	1	1
C90	616	531	446	361	301	241	181	121	61
C180	752	682	603	510	335	137	12	3	1
C270	649	568	486	404	337	270	202	135	68

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator:

Beta Plane (°):-90.0-90.0:1.0

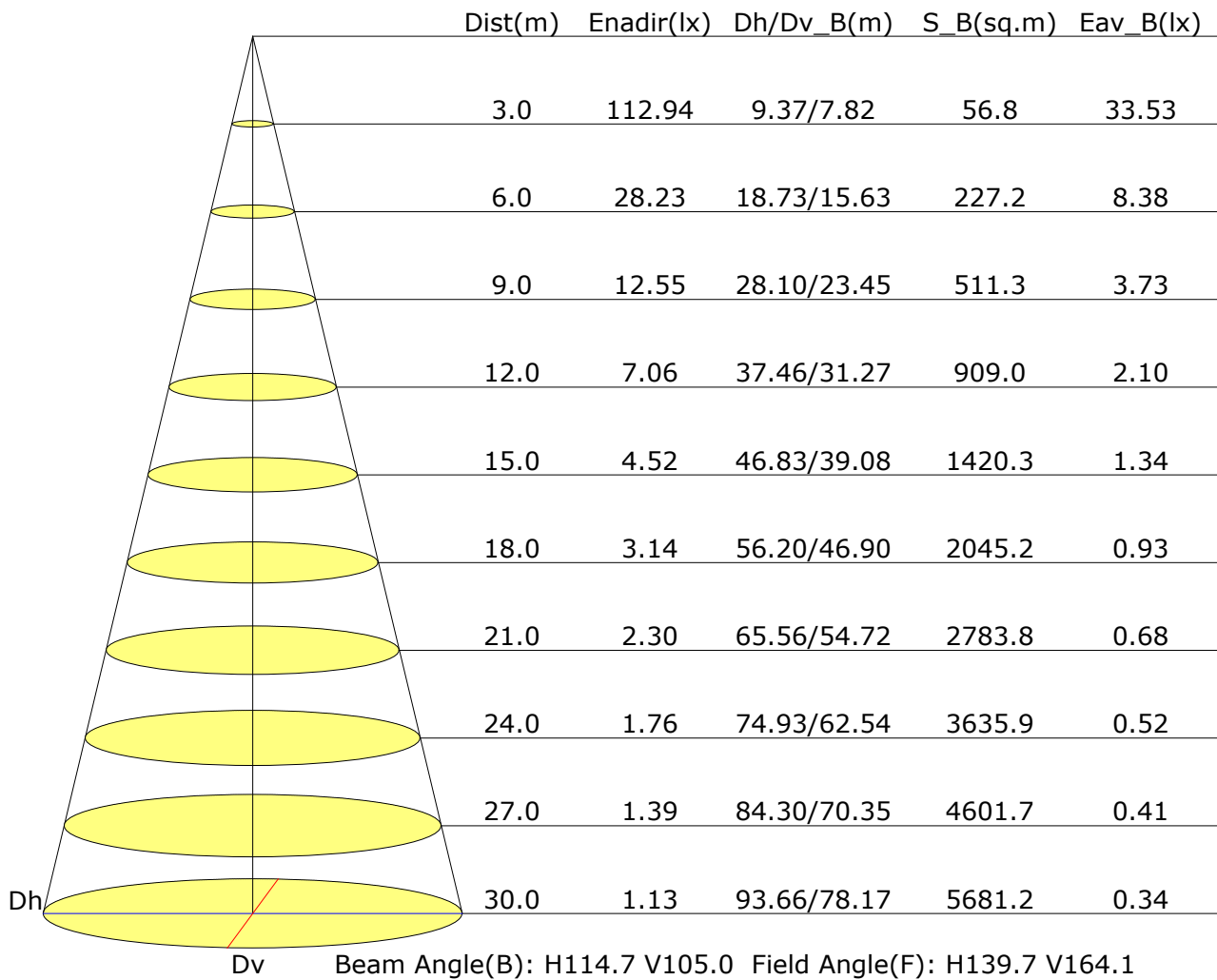
Test Device: GPM-1600L

Distance: 7.175 m [K=1.0000]

Humidity:

Inspector:

## Illuminance at a Distance



B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator:

Beta Plane (°):-90.0-90.0:1.0

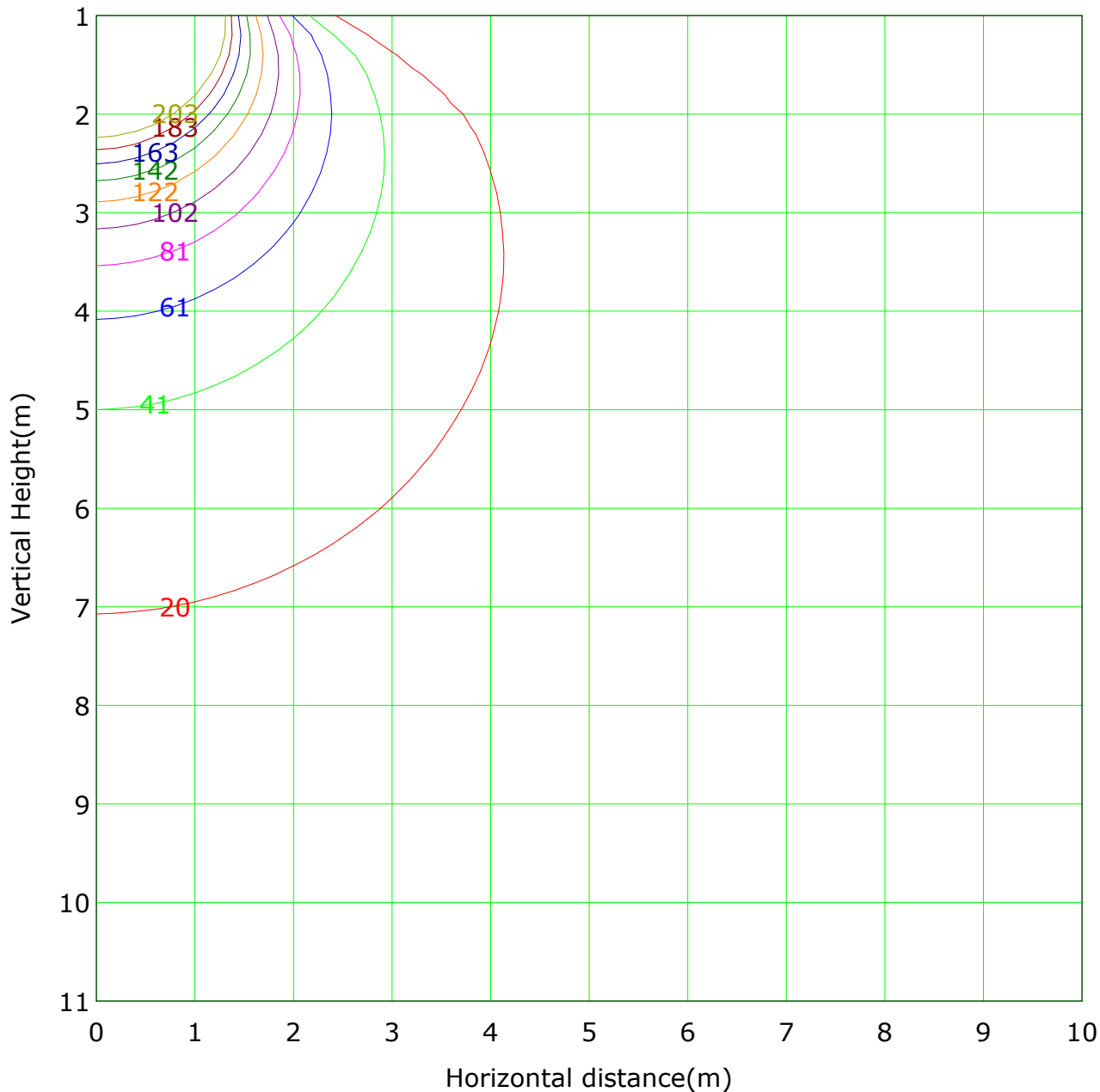
Test Device: GPM-1600L

Distance: 7.175 m [K=1.0000]

Humidity:

Inspector:

## Vertical IsoLux Plot



Lowest(m): 1.0m	Highest(m): 11.0m	Max Lux: 1016.4 lx
( 2%): 20.3 lx	( 4%): 40.7 lx	
( 6%): 61.0 lx	( 8%): 81.3 lx	
( 10%): 101.6 lx	( 12%): 122.0 lx	
( 14%): 142.3 lx	( 16%): 162.6 lx	
( 18%): 183.0 lx	( 20%): 203.3 lx	

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator:

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.175 m [K=1.0000]

Humidity:

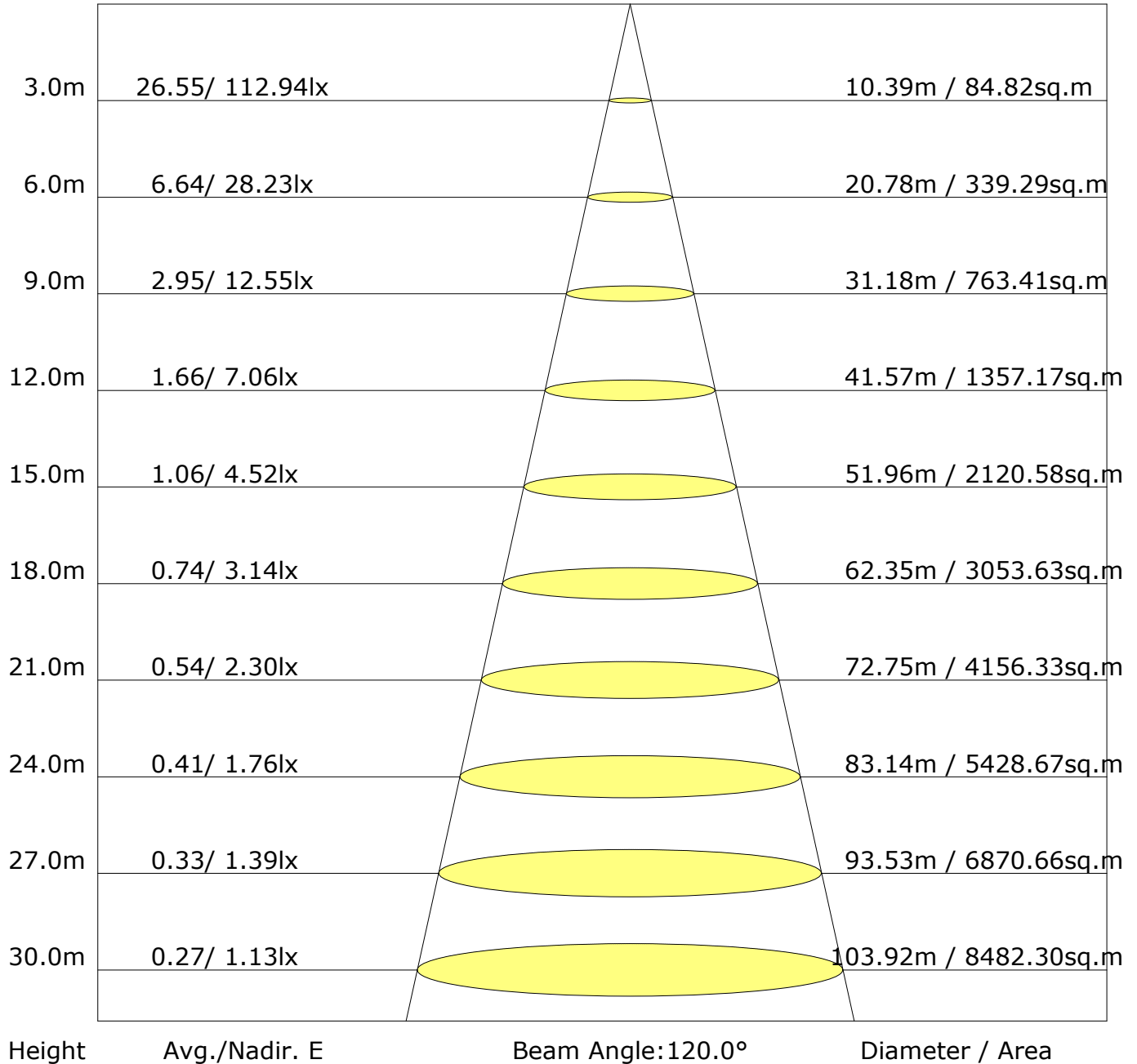
Inspector:

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

Beta Plane (°):-90.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 7.175 m [K=1.0000]  
Humidity:  
Inspector:

## The Average Illuminance Effective Figure

Flux Out: 2251.93lm



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

Beta Plane (°):-90.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 7.175 m [K=1.0000]  
 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:

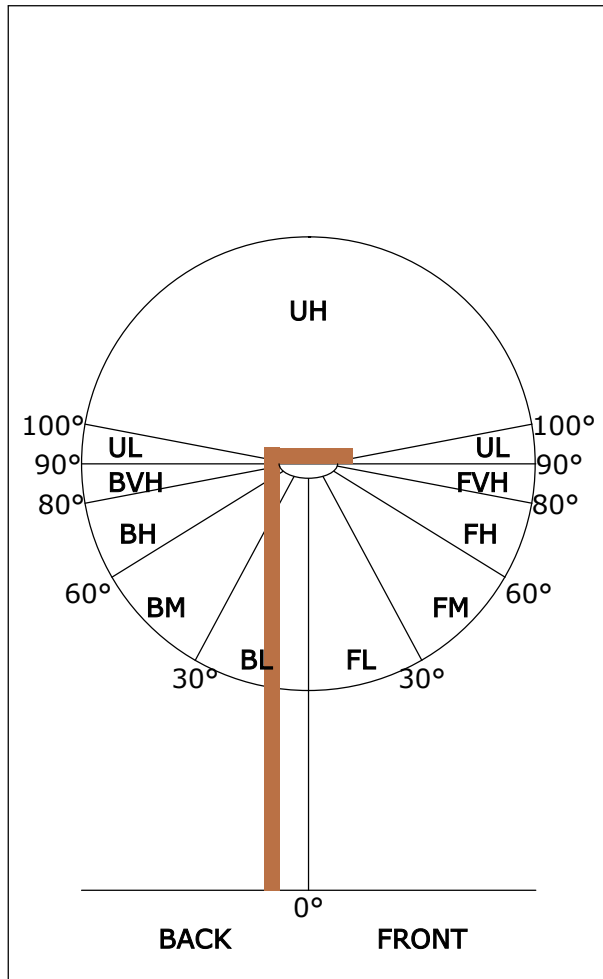
Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.175 m [K=1.0000]

Humidity:

Inspector:

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

ZONE	LUMENS	% LAMP LUMENS
FORWARD LIGHT	1321	48.6
FL ( 0°-30°)	392	14.4
FM (30°-60°)	717	26.4
FH (60°-80°)	194	7.1
FVH (80°-90°)	18	0.7
BACK LIGHT	1415	52.1
BL ( 0°-30°)	394	14.5
BM (30°-60°)	763	28.1
BH (60°-80°)	236	8.7
BVH (80°-90°)	22	0.8
UP LIGHT	0	0.0
UL (90°-100°)	0	0.0
UH (100°-180°)	0	0.0
TRAPPED LIGHT	NA	NA

<b>BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07</b>	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B1 U1 G1
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B1 U1 G1

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator:

Beta Plane (°):-90.0-90.0:1.0

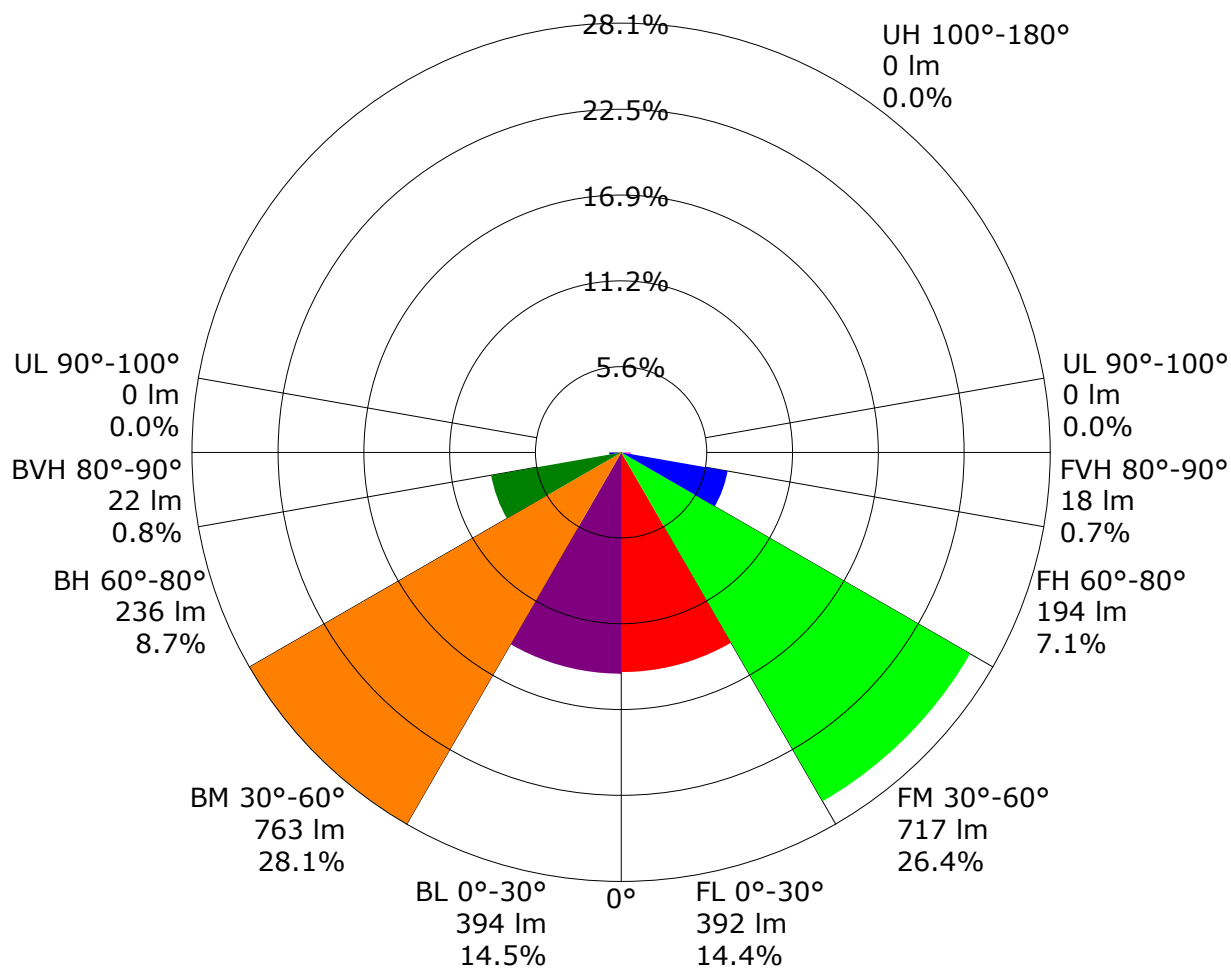
Test Device: GPM-1600L

Distance: 7.175 m [K=1.0000]

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:

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.175 m [K=1.0000]

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	0.57	0.67	0.74	0.79	0.86	0.90	0.93	0.96	0.99	
	0.30		0.50	0.61	0.68	0.73	0.81	0.85	0.89	0.93	0.96	
	0.20		0.45	0.56	0.63	0.69	0.77	0.82	0.85	0.90	0.94	
0.50	0.50	0.20	0.55	0.65	0.72	0.77	0.83	0.87	0.89	0.93	0.95	
	0.30		0.49	0.59	0.67	0.72	0.79	0.83	0.86	0.90	0.93	
	0.20		0.45	0.55	0.62	0.68	0.75	0.80	0.83	0.88	0.91	
0.30	0.50	0.20	0.54	0.64	0.70	0.74	0.80	0.84	0.86	0.89	0.91	
	0.30		0.48	0.59	0.65	0.70	0.77	0.81	0.84	0.87	0.90	
	0.20		0.44	0.55	0.62	0.67	0.74	0.78	0.81	0.85	0.88	
0.00	0.00	0.00	0.42	0.52	0.59	0.64	0.71	0.75	0.78	0.81	0.84	
Rating:31W 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:

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.175 m [K=1.0000]

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	0.87	0.70	0.58	0.50	0.39	0.32	0.27	0.21	0.17	
	0.30		0.73	0.60	0.51	0.44	0.35	0.29	0.25	0.19	0.16	
	0.20		0.62	0.52	0.45	0.40	0.32	0.27	0.23	0.18	0.15	
0.50	0.50	0.20	0.84	0.67	0.56	0.48	0.37	0.34	0.26	0.19	0.16	
	0.30		0.71	0.58	0.49	0.43	0.34	0.28	0.24	0.18	0.15	
	0.20		0.62	0.51	0.44	0.39	0.31	0.26	0.22	0.18	0.15	
0.30	0.50	0.20	0.81	0.64	0.53	0.45	0.35	0.29	0.24	0.18	0.15	
	0.30		0.70	0.57	0.48	0.41	0.33	0.27	0.23	0.18	0.14	
	0.20		0.61	0.51	0.43	0.38	0.30	0.25	0.22	0.17	0.14	
0.00	0.00	0.00	0.51	0.41	0.34	0.29	0.23	0.19	0.16	0.12	0.10	
Rating:31W 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:

Beta Plane (°):-90.0-90.0:1.0  
 Test Device: GPM-1600L  
 Distance: 7.175 m [K=1.0000]  
 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	0.15	0.16	0.17	0.17	0.18	0.19	0.19	0.20	0.20	
	0.30		0.09	0.10	0.12	0.12	0.14	0.15	0.16	0.17	0.18	
	0.20		0.04	0.06	0.08	0.09	0.11	0.12	0.13	0.15	0.16	
0.50	0.50	0.20	0.14	0.15	0.16	0.16	0.17	0.18	0.18	0.19	0.19	
	0.30		0.09	0.10	0.11	0.12	0.14	0.15	0.15	0.17	0.17	
	0.20		0.04	0.06	0.08	0.09	0.11	0.12	0.13	0.15	0.16	
0.30	0.50	0.20	0.14	0.15	0.15	0.16	0.17	0.17	0.18	0.18	0.18	
	0.30		0.08	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.17	
	0.20		0.04	0.06	0.07	0.09	0.10	0.12	0.13	0.14	0.15	
0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Rating:31W 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:

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.175 m [K=1.0000]

Humidity:

Inspector:

## Zonal Lumen

[illegible]

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

Beta Plane (°):-90.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 7.175 m [K=1.0000]  
Humidity:  
Inspector:

## Zonal Lumen (Continue 1)

cone flux(90°): 1550.90 lm

%lum = 57.1%  
%lamp = 57.1%

cone flux(120°): 2251.93 lm

%lum = 82.9%  
%lamp = 82.9%

---

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator:

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.175 m [K=1.0000]

Humidity:

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: 7.175 m [K=1.0000]
Temperature:	Humidity:
Operator:	Inspector:

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.175 m [K=1.0000]

Humidity:

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: 7.175 m [K=1.0000]
Temperature:	Humidity:
Operator:	Inspector:

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.175 m [K=1.0000]

Humidity:

Inspector:

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: 7.175 m [K=1.0000]
Temperature:	Humidity:
Operator:	Inspector:

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.175 m [K=1.0000]

Humidity:

Inspector:

## Unit: cd

Inspector:

## Unit: cd

Inspector:

## Unit: cd

Inspector:

## Unit: cd

Inspector:

## Unit: cd

Inspector:

## Unit: cd

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.175 m [K=1.0000]

Humidity:

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:

Beta Plane (°):-90.0-90.0:1.0  
Test Device: GPM-1600L  
Distance: 7.175 m [K=1.0000]  
Humidity:  
Inspector: