

Report No.:

Test Time: 2025-11-11 15:46

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Lamp Catalog: 5000K

Number of Lamps:

Luminous Length (mm): 85

Luminous Height (mm):

Current: 0.0350 A

Power Factor: 0.9440

Luminaire Description:

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 85

Voltage: 232.00 V

Power: 7.58 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 759.2 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(50%): H89

Vertical Diffuse Angle(50%): V87.5

Luminous Efficacy (lm/w): 100.16

Max. Intensity: 525.62 cd/klm

S/MH(C0/C180): 1.17

Total Rated Lamp Lumens: 759.2 lm

Efficiency: 100%

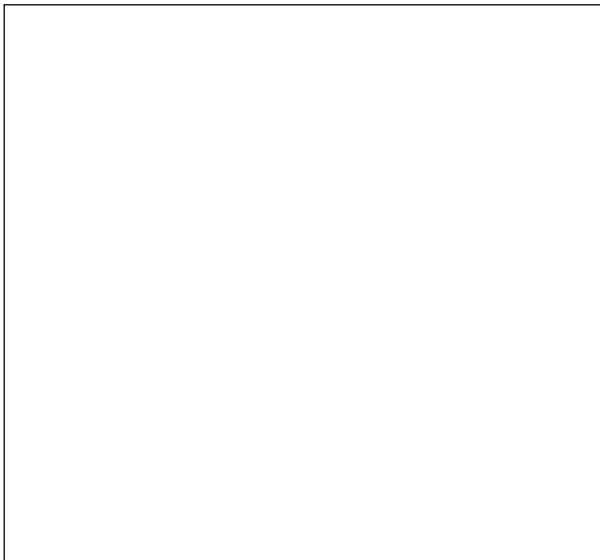
Upward Ratio: 0%

C0r0 Intensity: 525.62 cd/klm

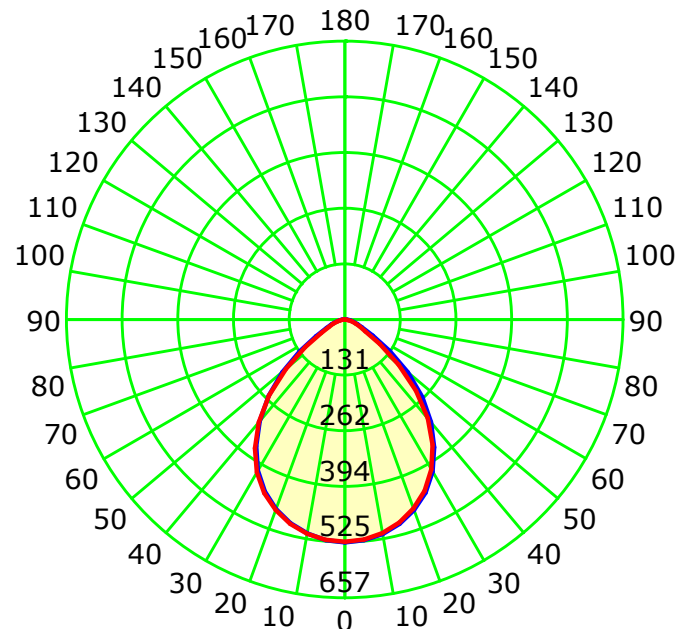
Pos of Max. Intensity: H0 V0

S/MH(C90/C270): 1.17

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd/klm

Average Diffuse Angle(50%): 88.2°

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:5.0

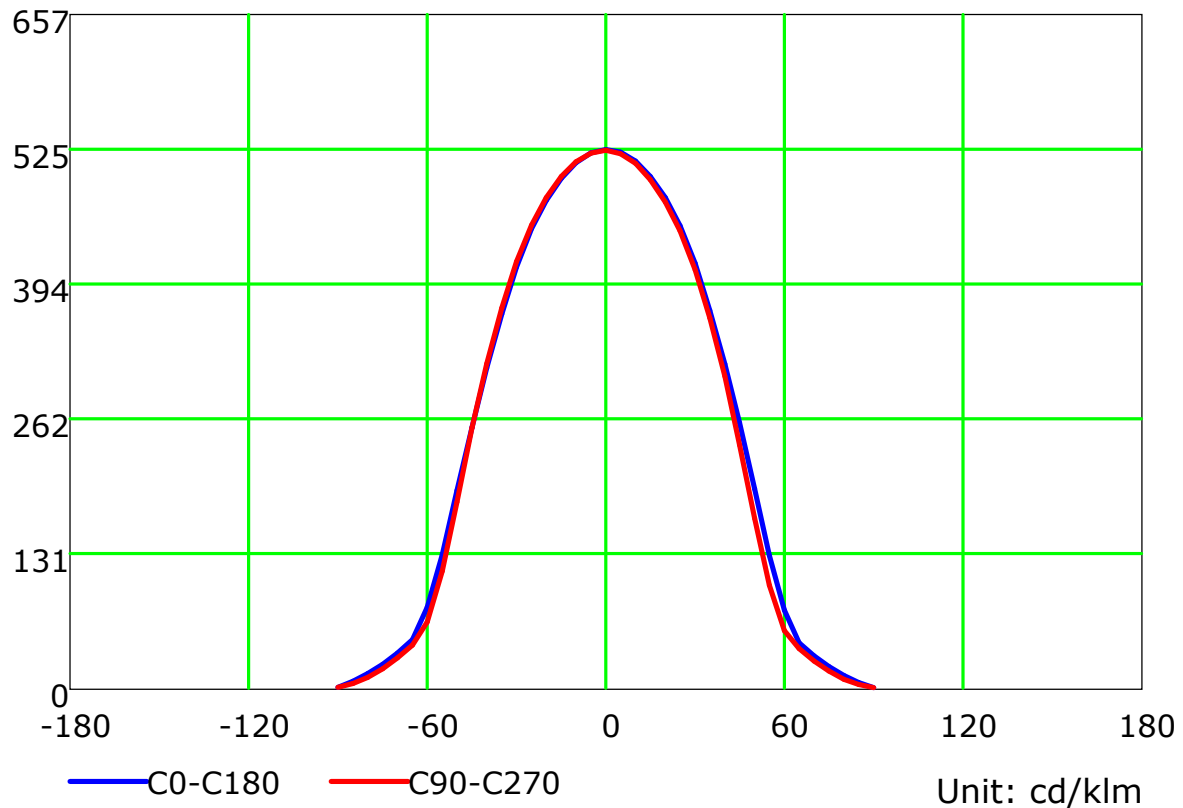
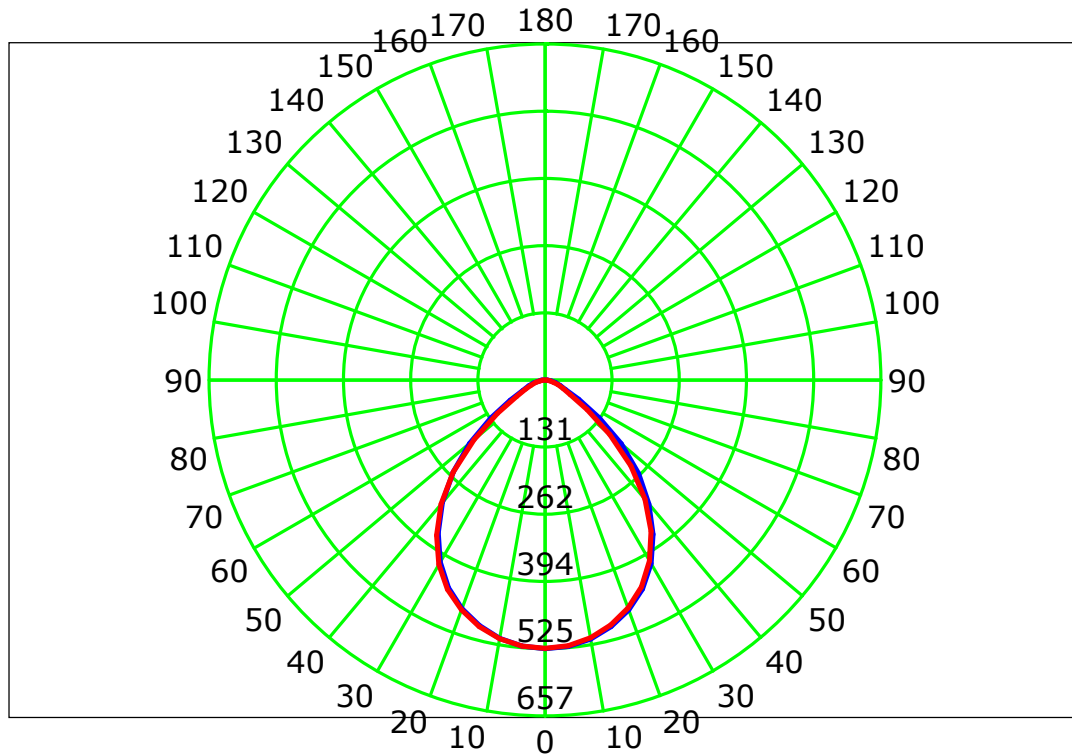
Test Device: GPM-1600L

Distance: 7.172 m [K=1.0000]

Humidity:

Inspector:

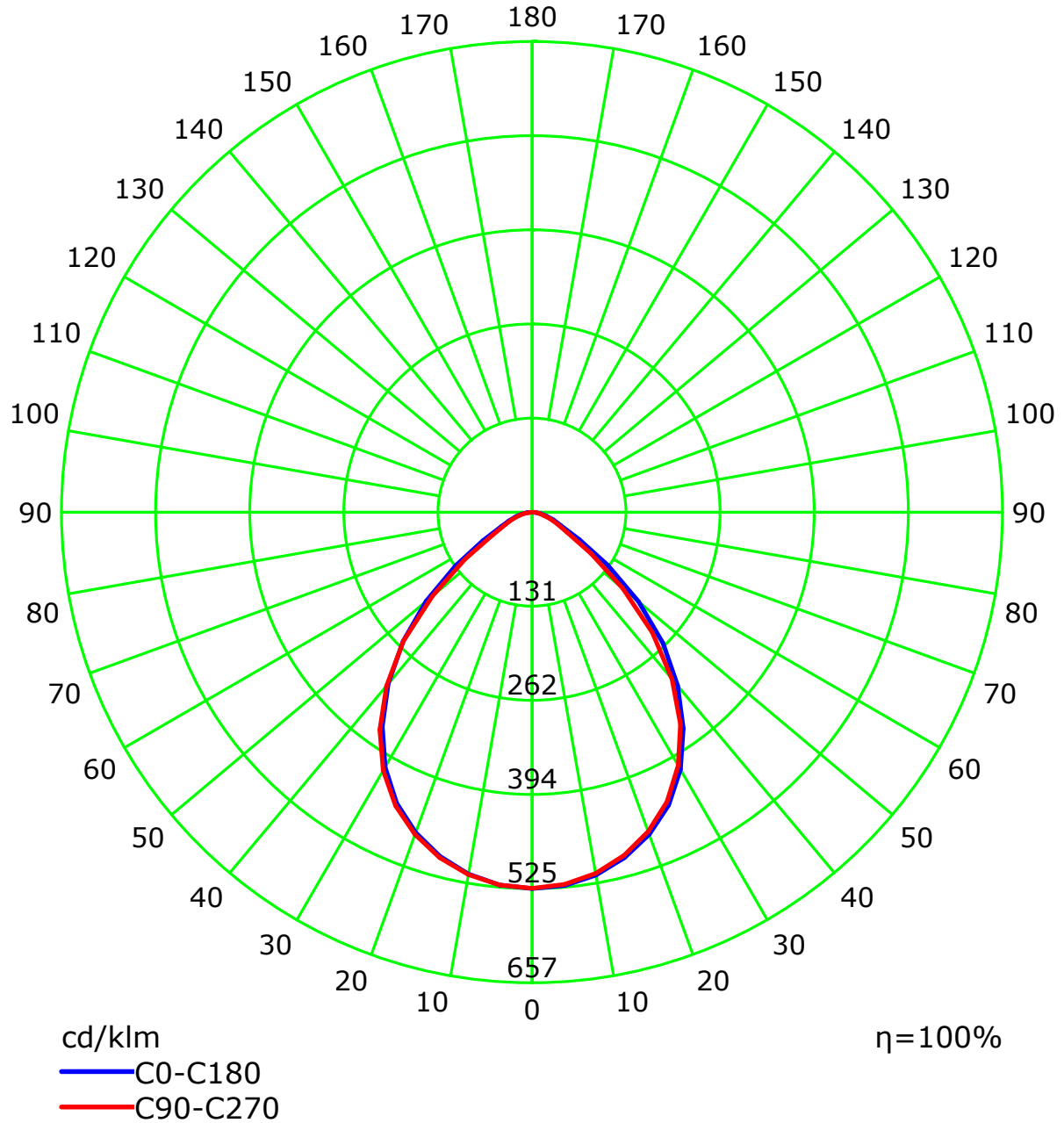
## Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 m [K=1.0000]  
 Humidity:  
 Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



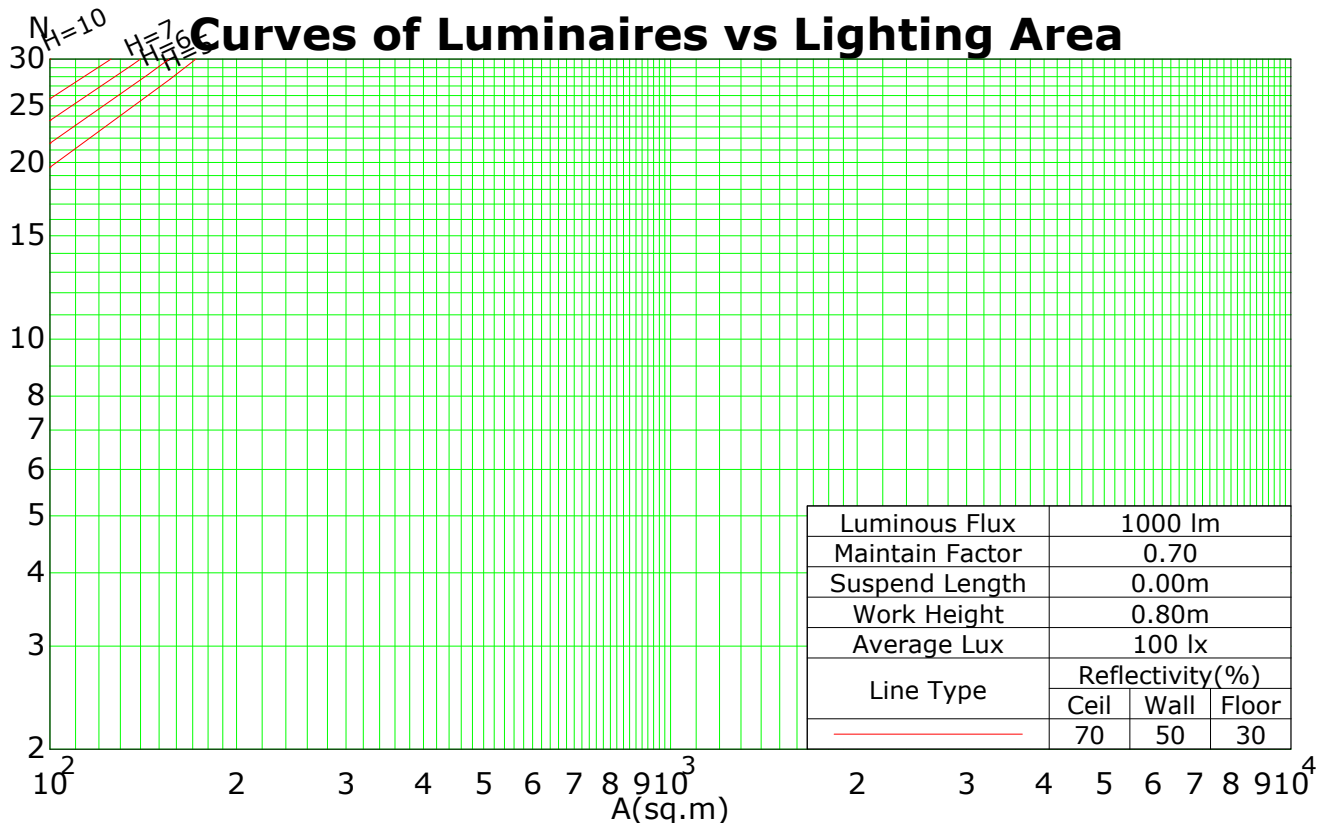
C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 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	1.11	1.07	1.04	1.01	1.09	1.05	1.02	0.99	1.01	0.99	0.96	0.97	0.95	0.93	0.94	0.92	0.91	0.89
2	1.03	0.96	0.91	0.86	1.01	0.95	0.90	0.85	0.91	0.87	0.83	0.88	0.85	0.82	0.85	0.82	0.80	0.78
3	0.96	0.87	0.80	0.75	0.93	0.85	0.79	0.74	0.83	0.77	0.73	0.80	0.75	0.72	0.78	0.74	0.71	0.69
4	0.89	0.79	0.71	0.66	0.87	0.77	0.70	0.65	0.75	0.69	0.64	0.73	0.68	0.63	0.71	0.66	0.63	0.61
5	0.82	0.71	0.64	0.58	0.81	0.70	0.63	0.58	0.68	0.62	0.57	0.66	0.61	0.57	0.65	0.60	0.56	0.54
6	0.77	0.65	0.57	0.52	0.75	0.64	0.57	0.51	0.63	0.56	0.51	0.61	0.55	0.51	0.60	0.54	0.50	0.48
7	0.72	0.60	0.52	0.46	0.70	0.59	0.52	0.46	0.58	0.51	0.46	0.56	0.50	0.46	0.55	0.50	0.45	0.44
8	0.67	0.55	0.47	0.42	0.66	0.54	0.47	0.42	0.53	0.46	0.42	0.52	0.46	0.42	0.51	0.45	0.41	0.40
9	0.63	0.51	0.43	0.38	0.62	0.50	0.43	0.38	0.49	0.43	0.38	0.48	0.42	0.38	0.47	0.42	0.38	0.36
10	0.59	0.47	0.40	0.35	0.58	0.47	0.40	0.35	0.46	0.39	0.35	0.45	0.39	0.35	0.44	0.39	0.35	0.33

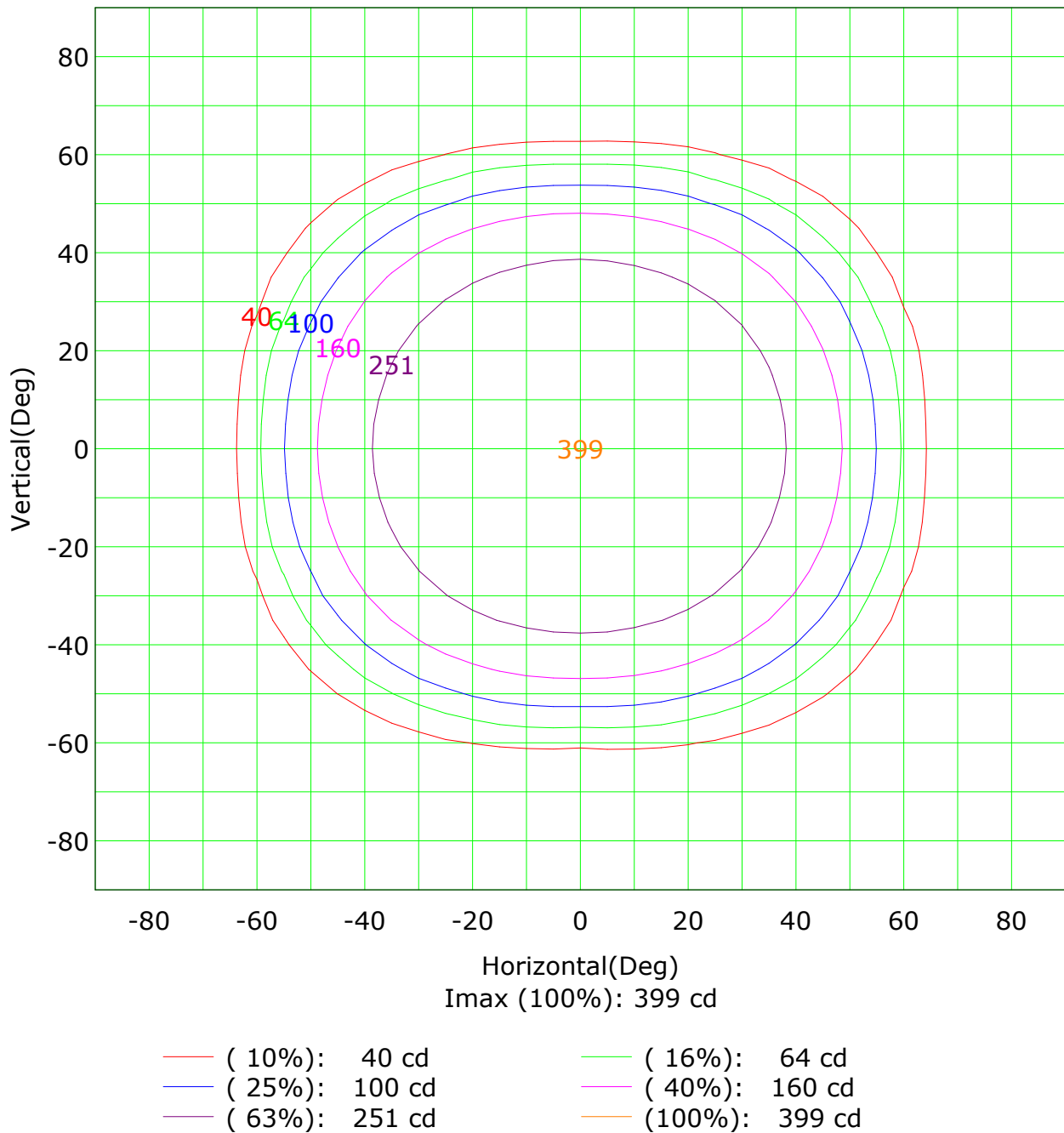
Spacing Criteria (0-180): 1.17  
 Spacing Criteria (90-270): 1.17  
 Spacing Criteria (Diagonal): 1.22



C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 m [K=1.0000]  
 Humidity:  
 Inspector:

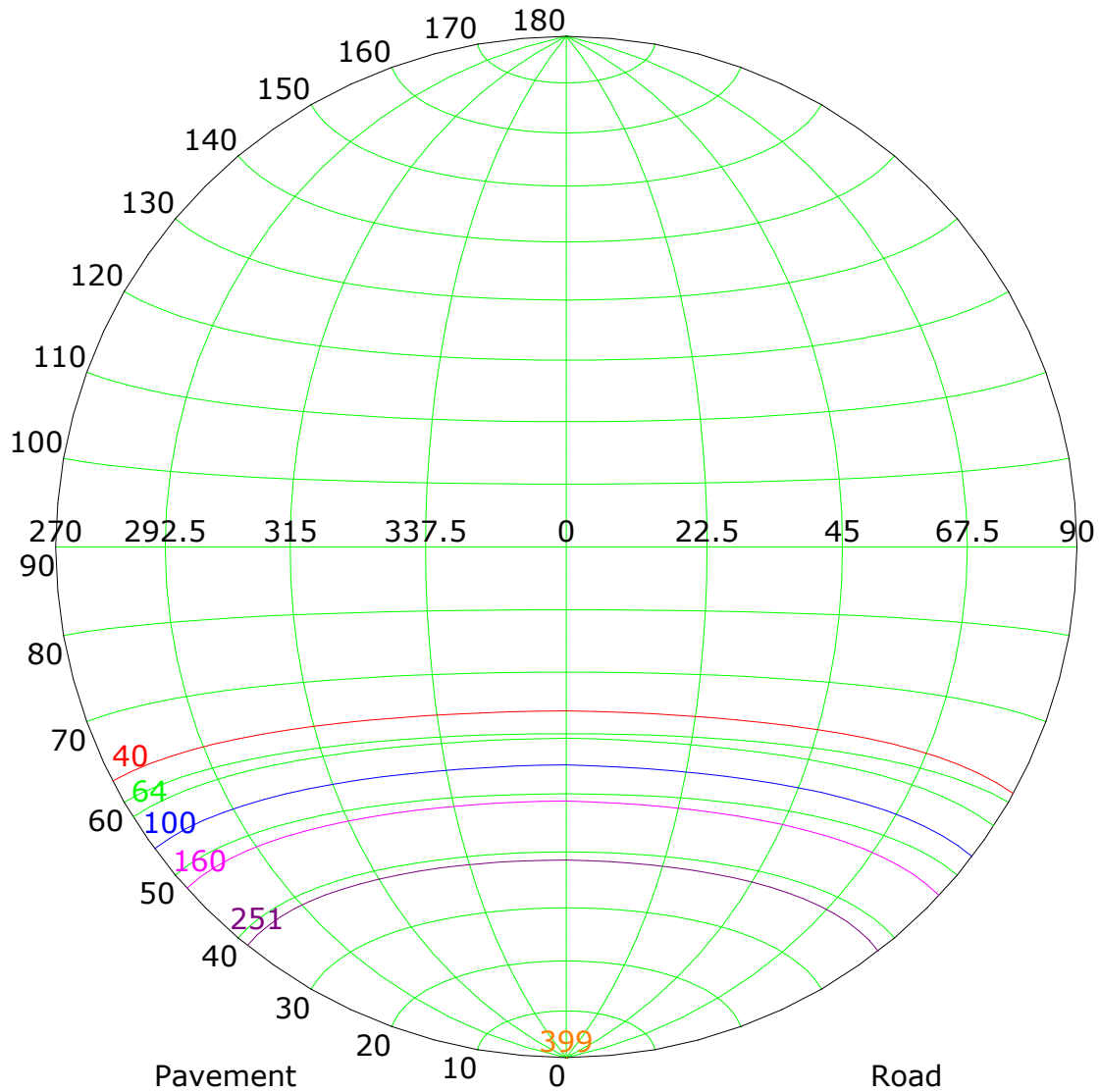
## Isocandela (rectangle)



C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 m [K=1.0000]  
 Humidity:  
 Inspector:

## Isocandela (sphere)



Imax (100%): 399 cd

— ( 10%): 40 cd  
— ( 25%): 100 cd  
— ( 63%): 251 cd

— ( 16%): 64 cd  
— ( 40%): 160 cd  
— (100%): 399 cd

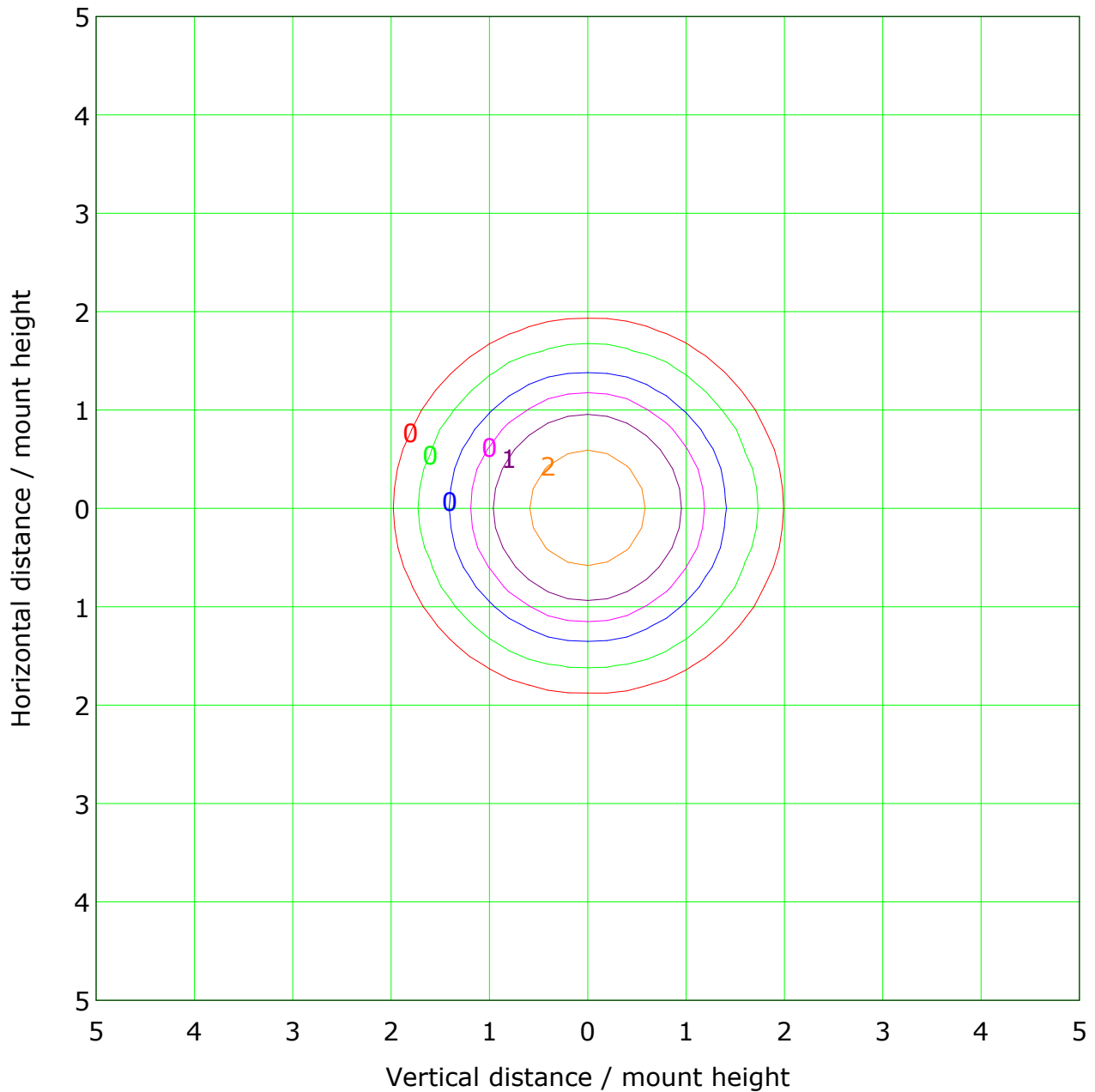
CIE: narrow - short  
CIE: Non-cut-off luminaire  
Max.At90: 41.901 cd/klm

IES: Non-cut-off  
Max.At80: 630.576 cd/klm  
Max.80-90: 46782488785236942000000000000000

C Plane (°):0.0-360.0: 90.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-90.0:5.0  
Test Device: GPM-1600L  
Distance: 7.172 m [K=1.0000]  
Humidity:  
Inspector:

## IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 4.0 lx

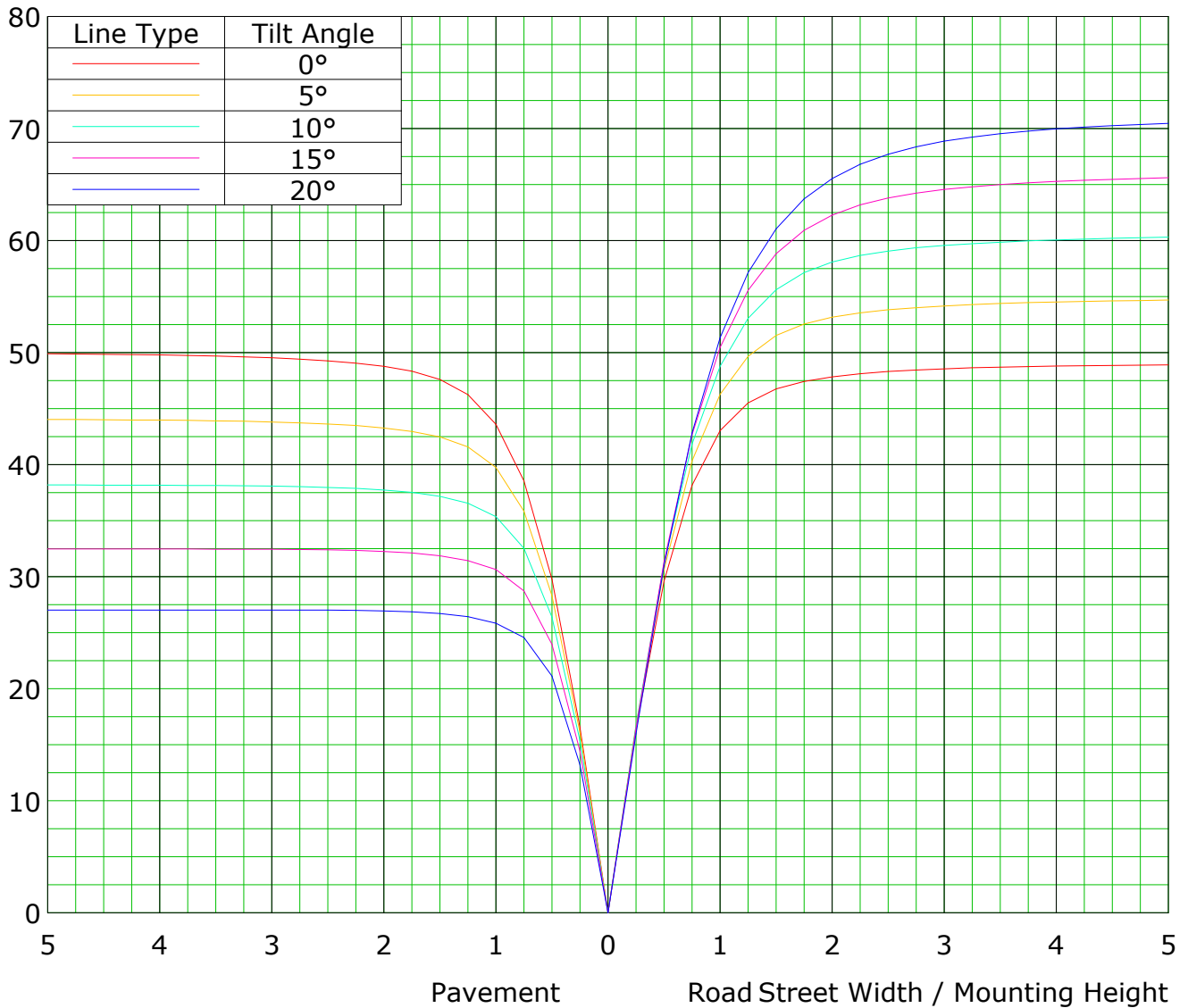
( 1%): 0.0 lx	( 2%): 0.1 lx
( 5%): 0.2 lx	( 10%): 0.4 lx
( 20%): 0.8 lx	( 50%): 2.0 lx
(100%): 4.0 lx	

C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 m [K=1.0000]  
 Humidity:  
 Inspector:

## Roadway CU Curve

Efficiency(%)



C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

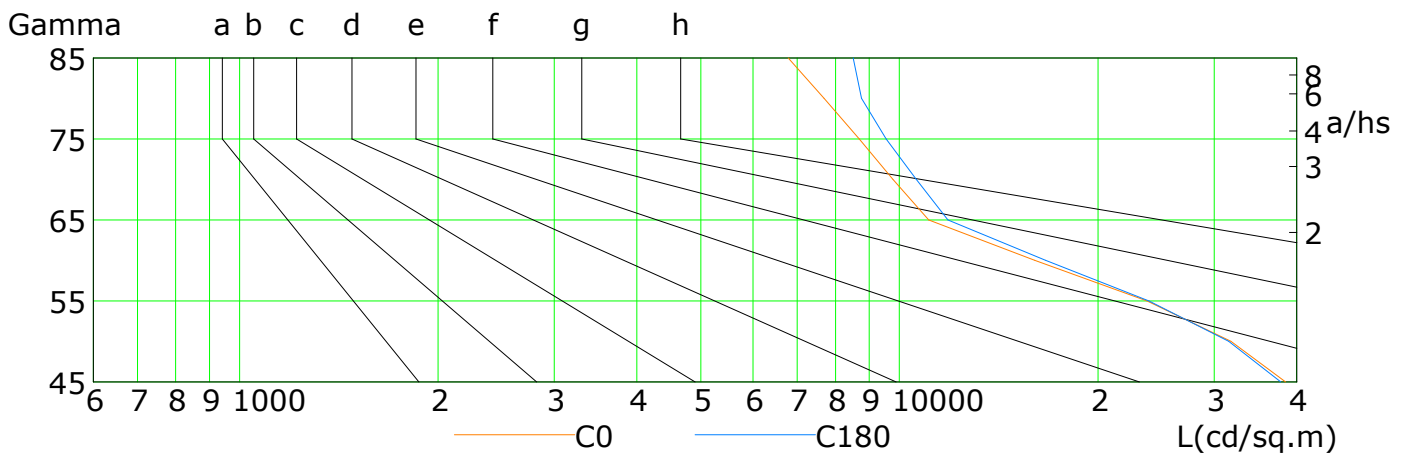
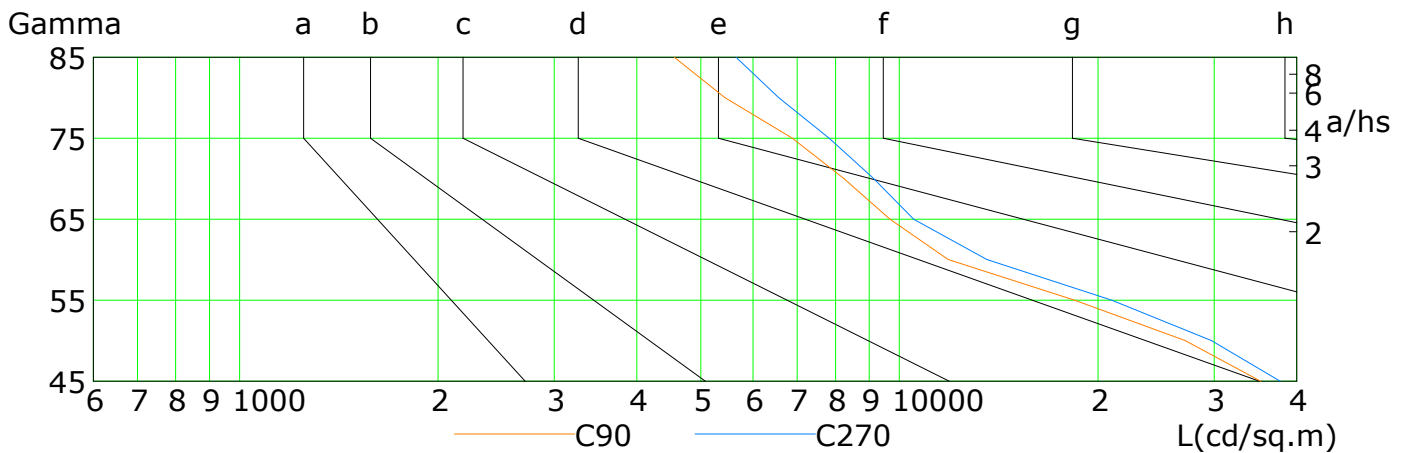
Gamma Plane (°):0.0-90.0:5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 m [K=1.0000]  
 Humidity:  
 Inspector:



## 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	38496	31804	23740	16042	11073	9773	8690	7692	6781
C90	35296	27105	18441	11862	9678	8243	6882	5436	4558
C180	37846	31562	23897	16645	11846	10607	9551	8760	8512
C270	37758	29711	20984	13581	10506	9146	7829	6560	5653

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:5.0

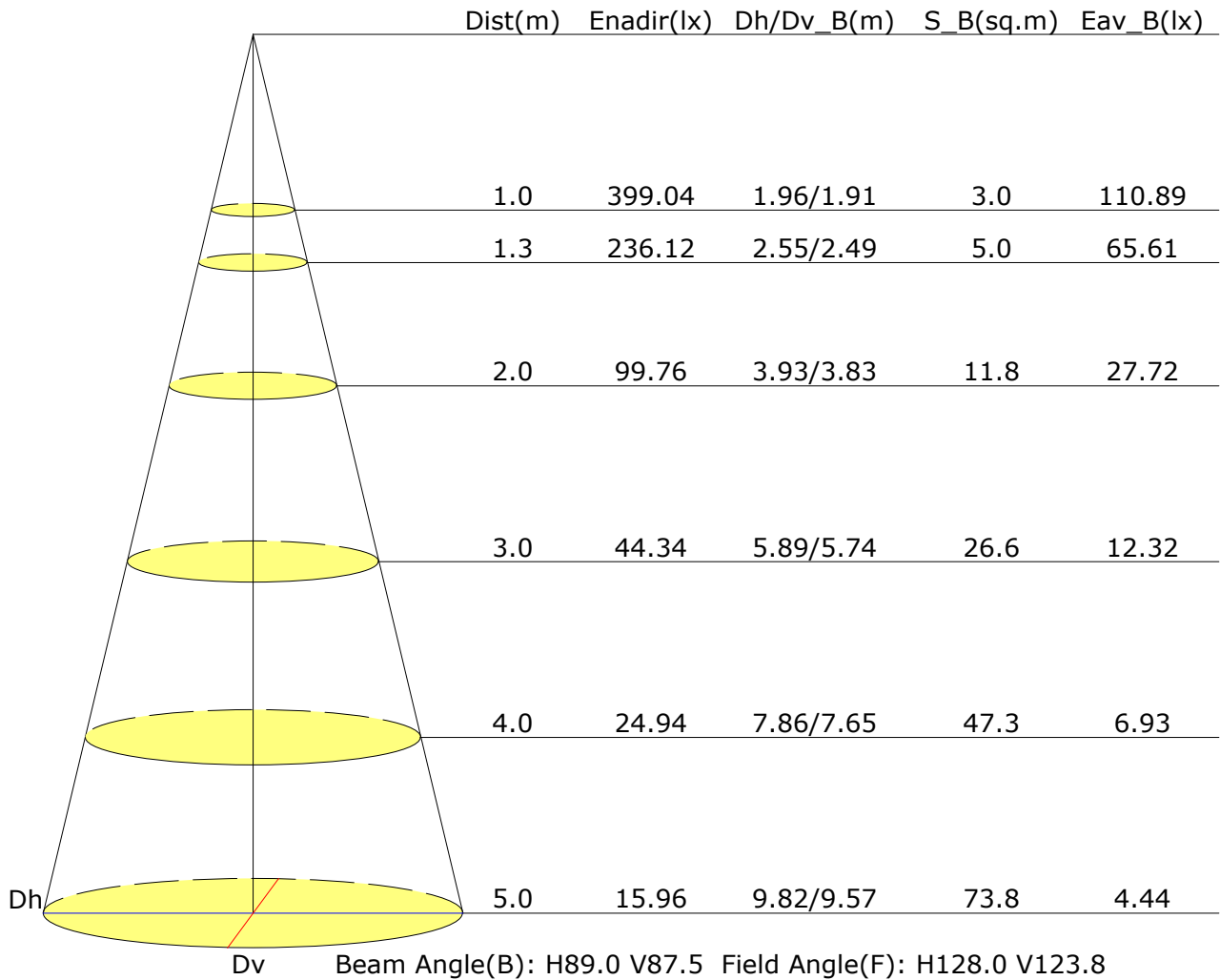
Test Device: GPM-1600L

Distance: 7.172 m [K=1.0000]

Humidity:

Inspector:

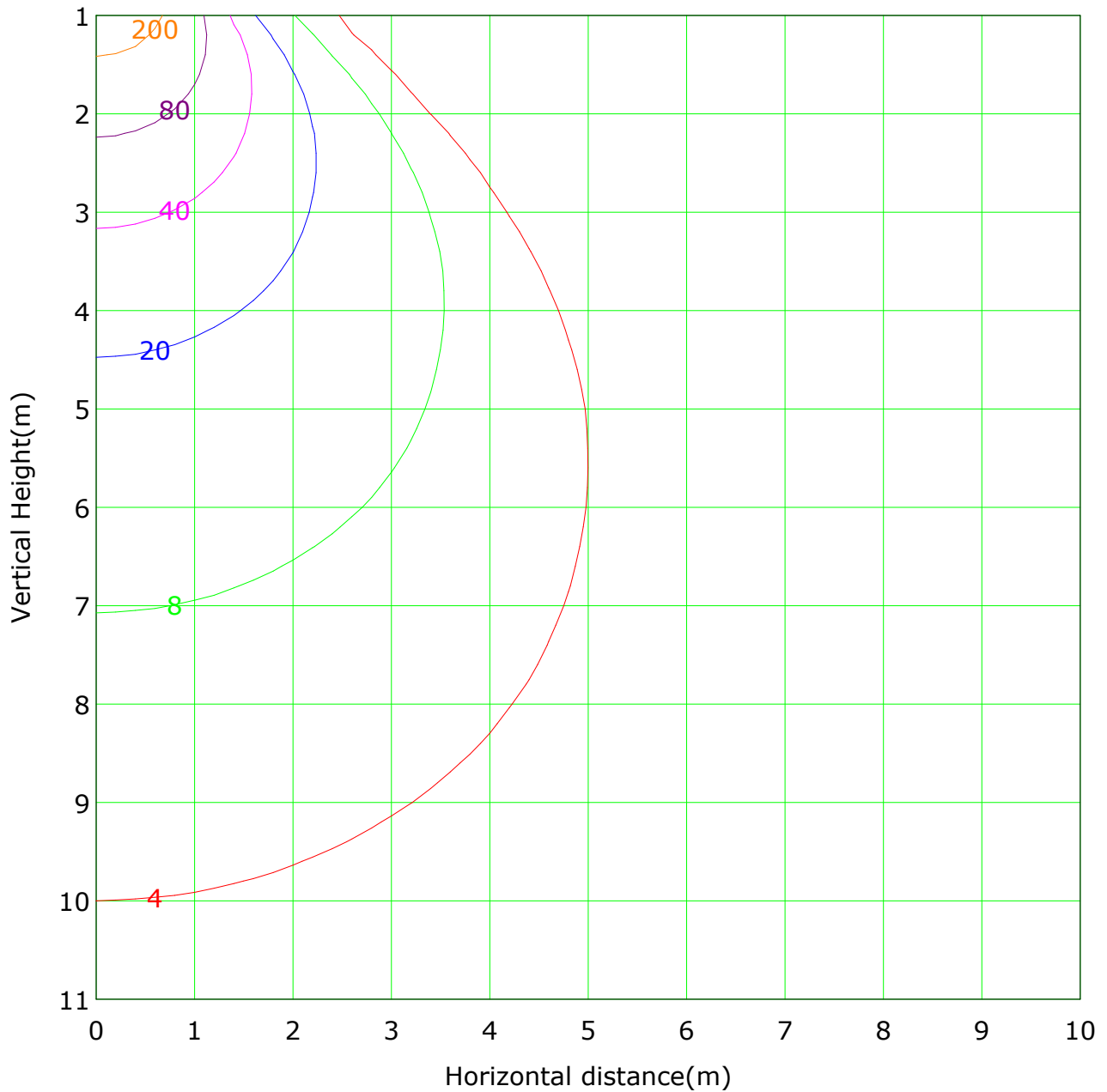
## Illuminance at a Distance



C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 m [K=1.0000]  
 Humidity:  
 Inspector:

## Vertical IsoLux Plot



Lowest(m): 1.0m    Highest(m): 11.0m    Max Lux: 399.0 lx  
 ( 1%): 4.0 lx    ( 2%): 8.0 lx  
 ( 5%): 20.0 lx    ( 10%): 39.9 lx  
 ( 20%): 79.8 lx    ( 50%): 199.5 lx  
 (100%): 399.0 lx

C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 m [K=1.0000]  
 Humidity:  
 Inspector:

## Area Flux Table

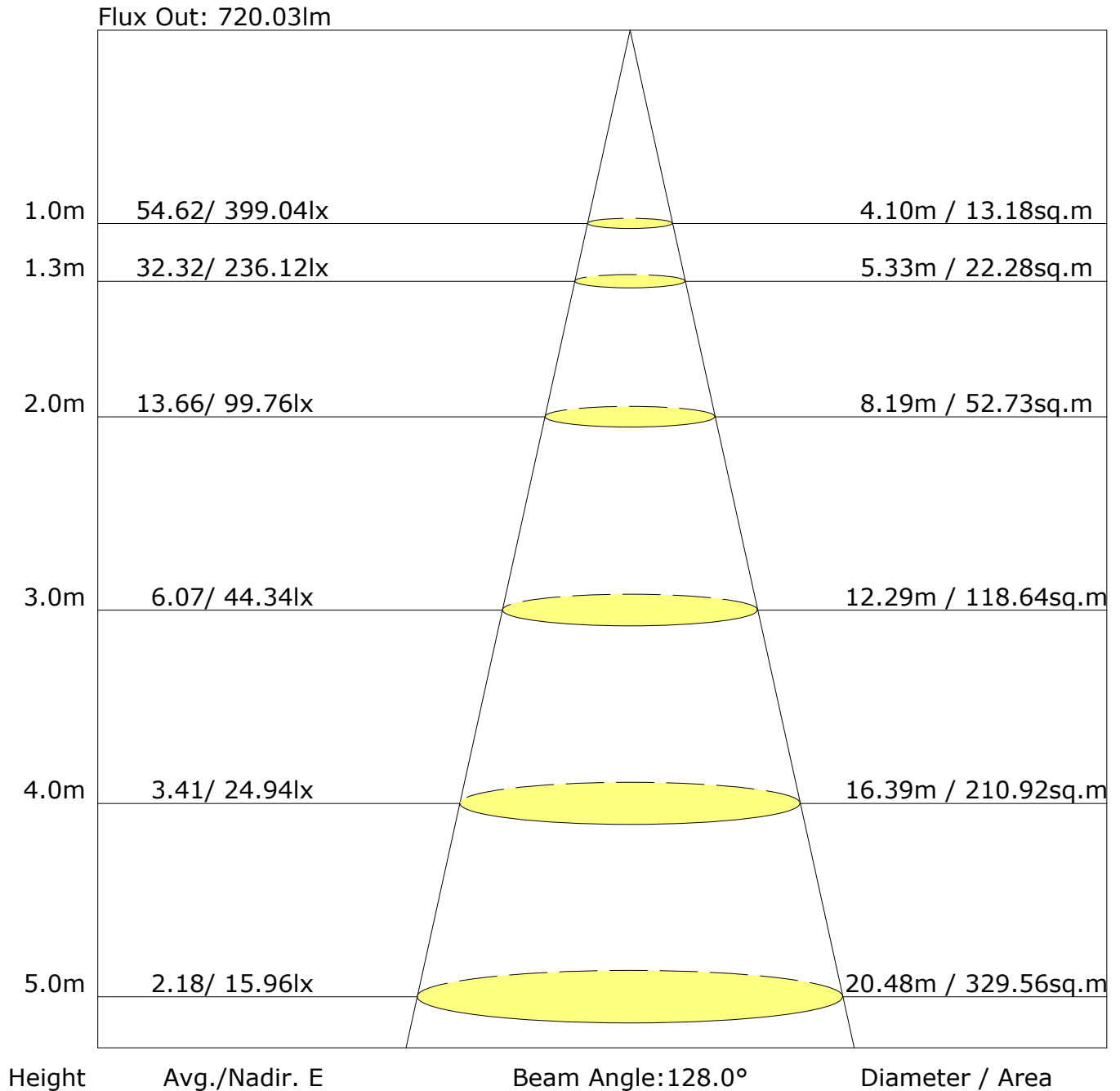
Unit: lm/klm

Vertical plane	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90
Flux(T)	0.3	2.1	6.5	18.1	41.4	71.5	100.9	123.3	135.1	135.2	123.6	101.3	71.8	41.4	17.7	6.1	1.9	0.2	998
Flux(E)	0.0	0.0	1.5	14.2	37.9	68.1	97.6	120.0	131.8	131.9	120.3	98.0	68.4	38.0	13.8	1.2	0.0	0.0	943
Horizontal plane	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90
Flux(T)	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	1.6
Flux(E)	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0	5.4
Flux(T)	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.3	1.4	1.3	1.2	1.0	0.8	0.5	0.3	0.2	0.1	0.0	11.2
Flux(E)	0.0	0.1	0.3	0.6	0.9	1.6	2.4	3.1	3.6	3.6	3.1	2.3	1.5	0.9	0.5	0.3	0.1	0.0	24.8
Flux(T)	0.0	0.1	0.4	0.8	1.7	3.2	5.1	6.6	7.5	7.5	6.7	5.1	3.2	1.6	0.8	0.3	0.1	0.0	50.8
Flux(E)	0.0	0.1	0.5	1.2	2.9	5.4	8.0	9.9	11.0	11.0	10.0	8.0	5.4	2.9	1.1	0.4	0.1	0.0	77.9
Flux(T)	0.0	0.2	0.5	1.6	4.1	7.2	10.1	12.3	13.5	13.5	12.4	10.2	7.3	4.1	1.6	0.5	0.2	0.0	99.3
Flux(E)	0.0	0.2	0.6	2.1	5.0	8.4	11.5	13.8	15.0	15.0	13.8	11.6	8.5	5.0	2.0	0.6	0.2	0.0	113.3
Flux(T)	0.0	0.2	0.7	2.3	5.4	9.0	12.2	14.5	15.7	15.7	14.5	12.3	9.1	5.5	2.3	0.6	0.2	0.0	120.1
Flux(E)	0.0	0.2	0.7	2.3	5.4	9.0	12.2	14.4	15.6	15.7	14.5	12.3	9.1	5.5	2.3	0.6	0.2	0.0	119.9
Flux(T)	0.0	0.2	0.6	2.0	4.9	8.3	11.5	13.7	14.9	14.9	13.8	11.5	8.4	5.0	2.0	0.6	0.2	0.0	112.5
Flux(E)	0.0	0.2	0.5	1.6	4.0	7.1	10.0	12.2	13.3	13.3	12.2	10.1	7.1	4.0	1.6	0.5	0.2	0.0	98.0
Flux(T)	0.0	0.1	0.4	1.1	2.8	5.2	7.7	9.7	10.8	10.8	9.7	7.8	5.3	2.8	1.1	0.4	0.1	0.0	75.9
Flux(E)	0.0	0.1	0.4	0.8	1.6	3.1	4.8	6.3	7.1	7.1	6.3	4.8	3.1	1.6	0.7	0.3	0.1	0.0	48.1
Flux(T)	0.0	0.1	0.3	0.5	0.9	1.5	2.2	2.8	3.2	3.2	2.8	2.2	1.4	0.9	0.5	0.2	0.1	0.0	22.9
Flux(E)	0.0	0.1	0.2	0.3	0.5	0.8	1.0	1.2	1.2	1.2	1.1	1.0	0.7	0.5	0.3	0.2	0.1	0.0	10.5
Flux(T)	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.2	0.1	0.0	0.0	4.9
Flux(E)	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	1.4

Gamma Plane (°): 0.0-90.0: 5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 m [K=1.0000]  
 Humidity:  
 Inspector:

C Plane (°): 0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

## The Average Illuminance Effective Figure



C Plane (°): 0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°): 0.0-90.0: 5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 m [K=1.0000]  
 Humidity:  
 Inspector:

## UGR Table

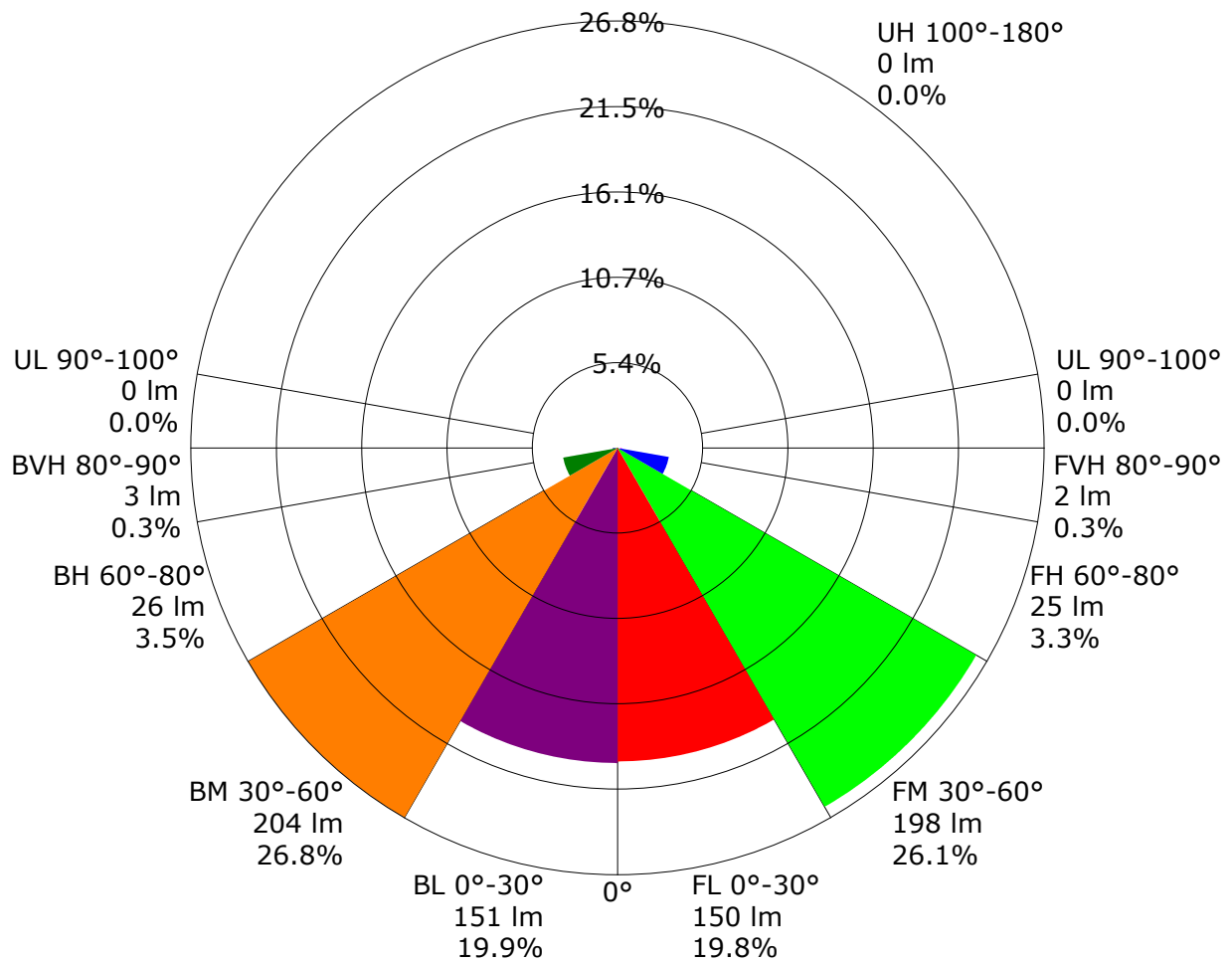
Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	22.9	24.0	23.2	24.3	24.5	22.5	23.6	22.8	23.9	24.1
3H	23.1	24.2	23.5	24.5	24.7	22.7	23.8	23.0	24.0	24.3
4H	23.3	24.3	23.6	24.5	24.8	22.8	23.8	23.1	24.1	24.4
6H	23.4	24.3	23.7	24.6	24.9	22.9	23.8	23.2	24.1	24.4
8H	23.4	24.3	23.7	24.6	24.9	22.9	23.8	23.2	24.1	24.4
12H	23.4	24.2	23.8	24.6	24.9	22.9	23.7	23.2	24.0	24.4
X=4H Y=2H	22.9	23.9	23.3	24.2	24.5	22.6	23.6	22.9	23.9	24.1
3H	23.3	24.2	23.7	24.5	24.8	23.0	23.8	23.3	24.1	24.5
4H	23.6	24.3	23.9	24.7	25.0	23.1	23.9	23.5	24.2	24.6
6H	23.7	24.4	24.1	24.8	25.2	23.3	23.9	23.7	24.3	24.7
8H	23.8	24.4	24.2	24.8	25.2	23.3	23.9	23.7	24.3	24.7
12H	23.8	24.4	24.3	24.8	25.2	23.3	23.9	23.8	24.3	24.7
X=8H Y=4H	23.6	24.2	24.0	24.6	25.0	23.2	23.8	23.6	24.2	24.6
6H	23.8	24.3	24.3	24.7	25.2	23.4	23.9	23.9	24.3	24.8
8H	23.9	24.4	24.4	24.8	25.3	23.5	23.9	23.9	24.3	24.8
12H	24.0	24.4	24.5	24.9	25.4	23.5	23.9	24.0	24.4	24.9
X=12H Y=4H	23.6	24.1	24.0	24.5	25.0	23.2	23.7	23.6	24.1	24.6
6H	23.8	24.3	24.3	24.7	25.2	23.4	23.8	23.9	24.3	24.8
8H	24.0	24.3	24.4	24.8	25.3	23.5	23.9	24.0	24.3	24.8
Variations with the observer position at spacings:										
S=1.0H	+0.6/-0.9					+0.7/-1.1				
S=1.5H	+1.3/-2.3					+1.5/-2.6				
S=2.0H	+2.7/-3.3					+2.9/-3.4				

Calculate in accordance with CIE Pub.117. The table is revised with  $759\text{lm}$  ( $8\log(F/F_0) = -1.0$ ).

C Plane (°):0.0-360.0: 90.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-90.0:5.0  
Test Device: GPM-1600L  
Distance: 7.172 m [K=1.0000]  
Humidity:  
Inspector:

## LCS Graph



**Back Light**

**Forward Light**

Scale= MAX LCS%

Trapped Light:NA,NA

C Plane (°):0.0-360.0: 90.0  
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 Operator:

Gamma Plane (°):0.0-90.0:5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 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	0.69	0.79	0.85	0.89	0.95	0.99	1.02	1.05	1.07	
	0.30		0.63	0.73	0.79	0.84	0.90	0.95	0.98	1.02	1.04	
	0.20		0.58	0.68	0.75	0.80	0.87	0.91	0.95	0.99	1.02	
0.50	0.50	0.20	0.68	0.77	0.83	0.87	0.92	0.96	0.98	1.01	1.03	
	0.30		0.62	0.72	0.78	0.82	0.88	0.92	0.95	0.99	1.01	
	0.20		0.58	0.67	0.74	0.79	0.85	0.89	0.92	0.96	0.99	
0.30	0.50	0.20	0.66	0.75	0.81	0.84	0.89	0.93	0.95	0.98	0.99	
	0.30		0.61	0.71	0.77	0.81	0.86	0.90	0.92	0.96	0.98	
	0.20		0.58	0.67	0.73	0.77	0.83	0.87	0.90	0.94	0.96	
0.00	0.00	0.00	0.56	0.65	0.71	0.75	0.80	0.84	0.86	0.89	0.91	
<p>Rating:8W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>												



## 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	0.81	0.64	0.54	0.46	0.37	0.30	0.26	0.20	0.16	
	0.30		0.67	0.55	0.47	0.41	0.33	0.28	0.24	0.19	0.15	
	0.20		0.58	0.48	0.42	0.37	0.30	0.25	0.22	0.17	0.15	
0.50	0.50	0.20	0.77	0.62	0.51	0.44	0.35	0.32	0.24	0.18	0.15	
	0.30		0.66	0.53	0.45	0.39	0.32	0.26	0.23	0.17	0.14	
	0.20		0.57	0.47	0.41	0.36	0.29	0.24	0.21	0.17	0.14	
0.30	0.50	0.20	0.75	0.59	0.49	0.42	0.33	0.27	0.23	0.17	0.14	
	0.30		0.64	0.52	0.44	0.38	0.30	0.25	0.21	0.17	0.14	
	0.20		0.56	0.46	0.40	0.35	0.28	0.23	0.20	0.16	0.13	
0.00	0.00	0.00	0.44	0.35	0.29	0.25	0.20	0.16	0.14	0.11	0.09	
Rating:8W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

## 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	0.18	0.19	0.19	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	0.07	0.09	0.10	0.12	0.14	0.15	0.16	0.17	
0.50	0.50	0.20	0.14	0.15	0.16	0.17	0.18	0.19	0.19	0.20	0.20	
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19	
	0.20		0.05	0.07	0.09	0.10	0.12	0.13	0.14	0.16	0.17	
0.30	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	0.12	0.13	0.14	0.15	0.16	0.17	0.18	
	0.20		0.05	0.07	0.08	0.10	0.12	0.13	0.14	0.15	0.16	
0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Rating:8W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 m [K=1.0000]  
 Humidity:  
 Inspector:

## Zonal Lumen

[illegible]

C Plane (°):0.0-360.0: 90.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-90.0:5.0  
Test Device: GPM-1600L  
Distance: 7.172 m [K=1.0000]  
Humidity:  
Inspector:

## Zonal Lumen (Continue 1)

cone flux(90°): 553.06 lm

%lum = 72.8%  
%lamp = 72.8%

cone flux(120°): 702.74 lm

%lum = 92.6%  
%lamp = 92.6%

## Unit: cd/klm

C Plane (°):0.0-360.0: 90.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-90.0:5.0  
Test Device: GPM-1600L  
Distance: 7.172 m [K=1.0000]  
Humidity:  
Inspector:

## LED Average Luminance Report

Avg.L	cd/m <sup>2</sup>
L 0-180(65) av	11459.29
L 0-180(75) av	9120.48
L 0-180(85) av	7646.50
L 90-270(65) av	10091.97
L 90-270(75) av	7355.74
L 90-270(85) av	5105.61
L 45(65) av	10775.63
L 45(75) av	8238.11
L 45(85) av	6376.05

Standard: GB/T 29293-2012