

Report No.:

Test Time: 2025-11-11 15:57

Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Lamp Catalog: 3000K

Number of Lamps:

Luminous Length (mm): 110

Luminous Height (mm):

Current: 0.0430 A

Power Factor: 0.9370

Luminaire Description:

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 110

Voltage: 231.80 V

Power: 9.43 W

Photometric Results

CIE Class: Direct

Measurement Flux: 871.4 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(50%): H86.7

Vertical Diffuse Angle(50%): V85.9

Luminous Efficacy (lm/w): 92.40

Max. Intensity: 548.05 cd/klm

S/MH(C0/C180): 1.16

Total Rated Lamp Lumens: 871.4 lm

Efficiency: 100%

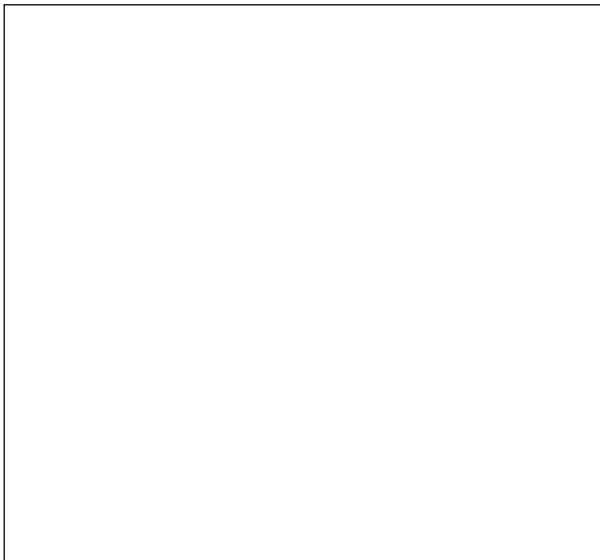
Upward Ratio: 0%

C0r0 Intensity: 548.05 cd/klm

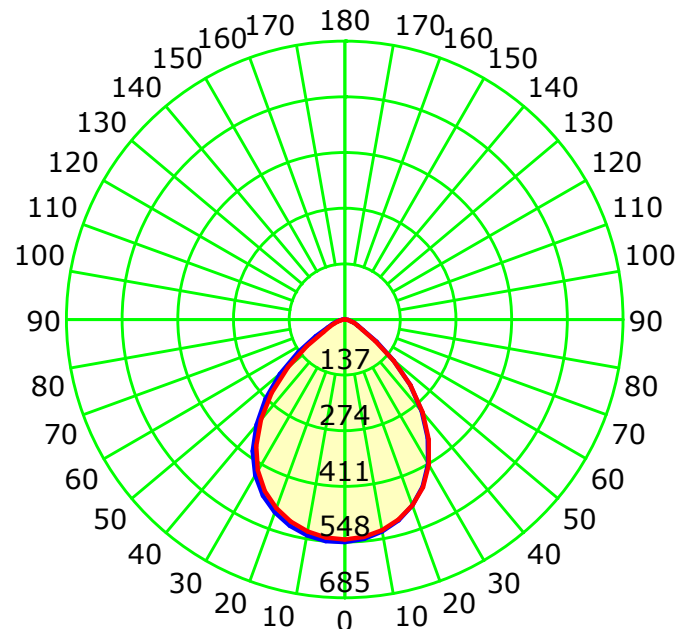
Pos of Max. Intensity: H0 V0

S/MH(C90/C270): 1.16

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd/klm

Average Diffuse Angle(50%): 86.3°

— 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

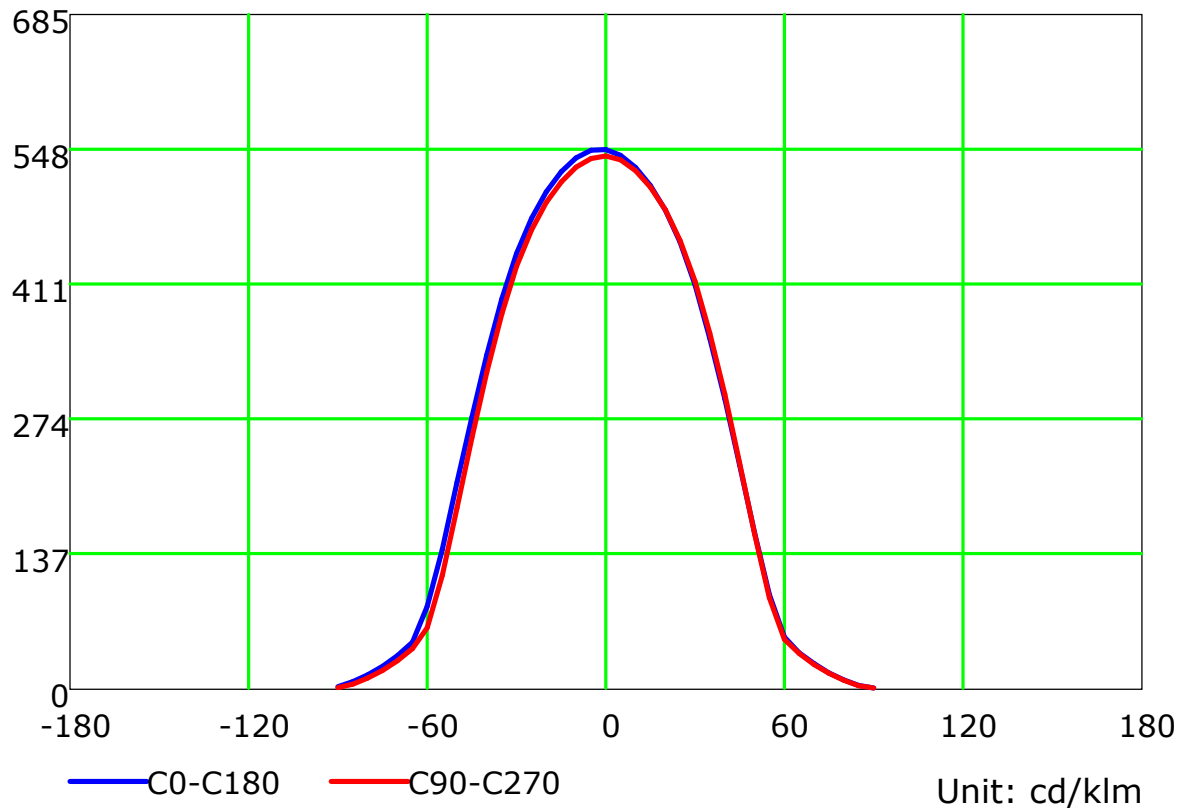
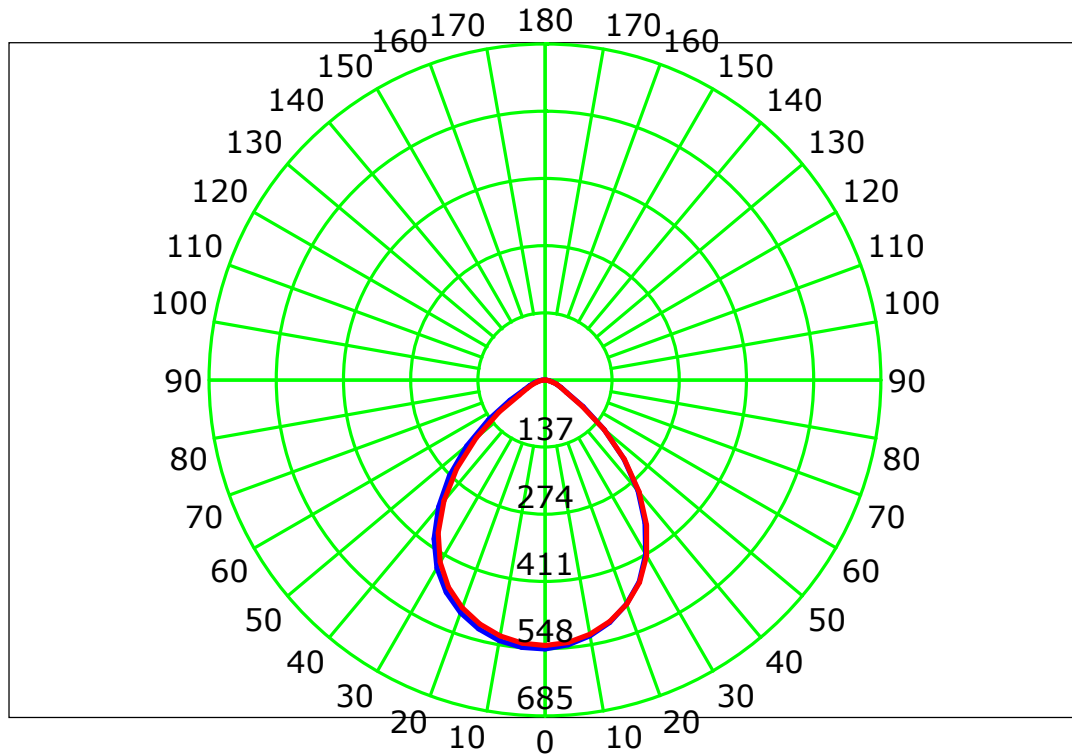
Test Device: GPM-1600L

Distance: 7.172 m [K=1.0000]

Humidity:

Inspector:

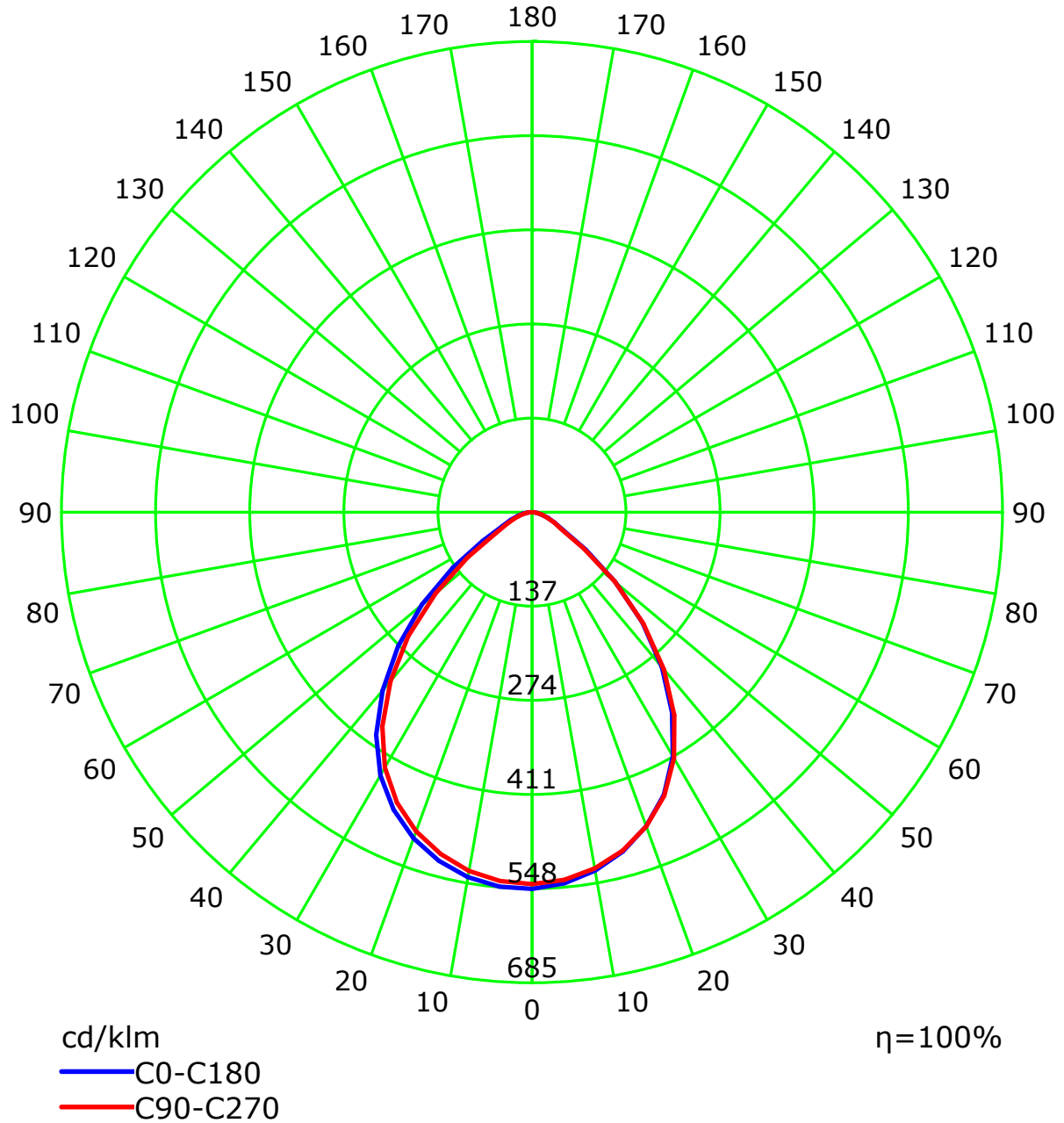
Luminous Intensity Distribution Curve



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)



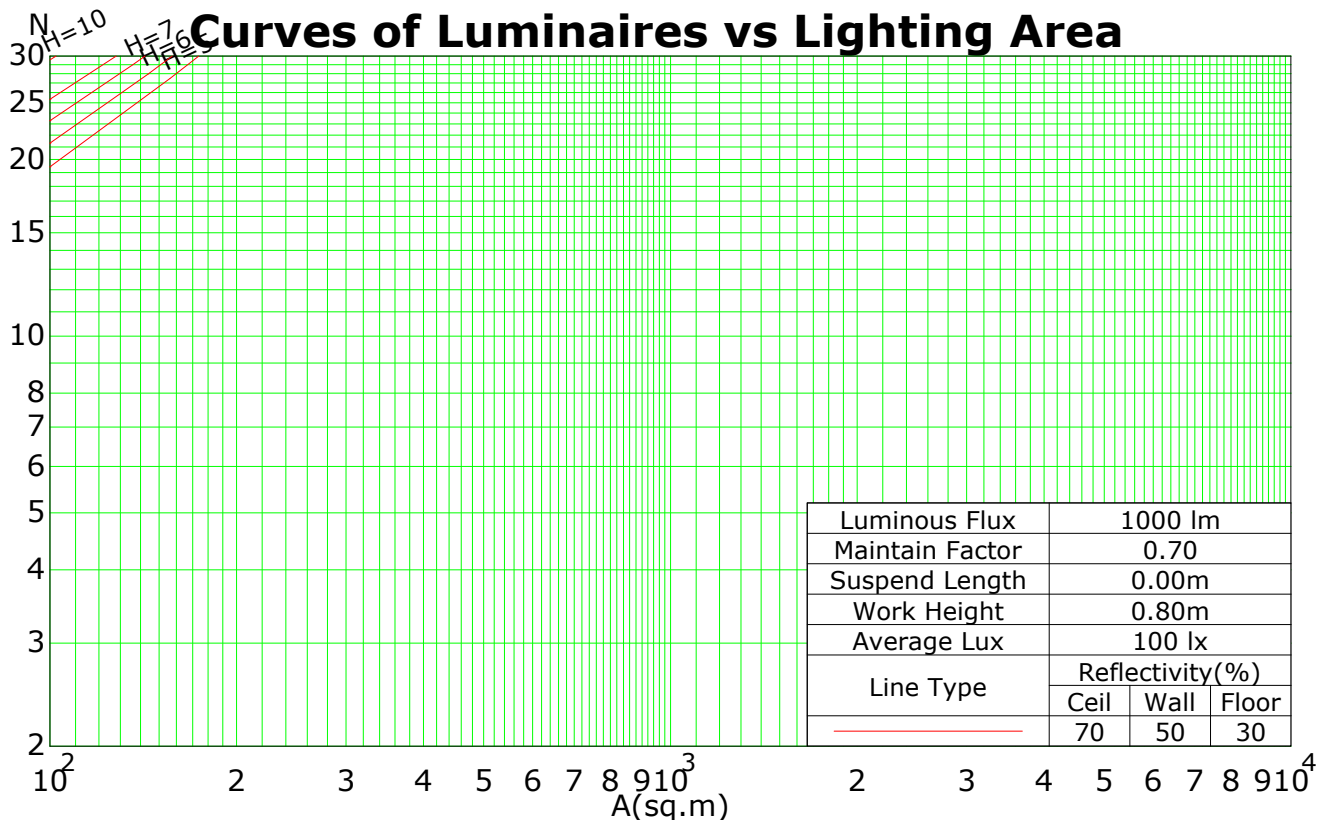
C Plane (°):0.0-360.0: 90.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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	1.08	1.04	1.01	1.09	1.05	1.02	1.00	1.01	0.99	0.97	0.97	0.96	0.94	0.94	0.92	0.91	0.89
2	1.03	0.97	0.92	0.87	1.01	0.95	0.90	0.86	0.92	0.88	0.84	0.89	0.85	0.82	0.86	0.83	0.80	0.79
3	0.96	0.87	0.81	0.76	0.94	0.86	0.80	0.75	0.83	0.78	0.74	0.81	0.76	0.72	0.78	0.74	0.71	0.69
4	0.89	0.79	0.72	0.66	0.87	0.78	0.71	0.66	0.76	0.70	0.65	0.73	0.68	0.64	0.71	0.67	0.63	0.62
5	0.83	0.72	0.64	0.59	0.81	0.71	0.64	0.59	0.69	0.63	0.58	0.67	0.62	0.57	0.66	0.61	0.57	0.55
6	0.77	0.66	0.58	0.53	0.76	0.65	0.58	0.52	0.63	0.57	0.52	0.62	0.56	0.52	0.60	0.55	0.51	0.49
7	0.72	0.60	0.53	0.47	0.71	0.60	0.52	0.47	0.58	0.52	0.47	0.57	0.51	0.47	0.56	0.50	0.46	0.45
8	0.68	0.56	0.48	0.43	0.66	0.55	0.48	0.43	0.54	0.47	0.43	0.53	0.47	0.42	0.52	0.46	0.42	0.40
9	0.64	0.52	0.44	0.39	0.62	0.51	0.44	0.39	0.50	0.43	0.39	0.49	0.43	0.39	0.48	0.43	0.39	0.37
10	0.60	0.48	0.41	0.36	0.59	0.47	0.40	0.36	0.46	0.40	0.36	0.46	0.40	0.36	0.45	0.39	0.35	0.34

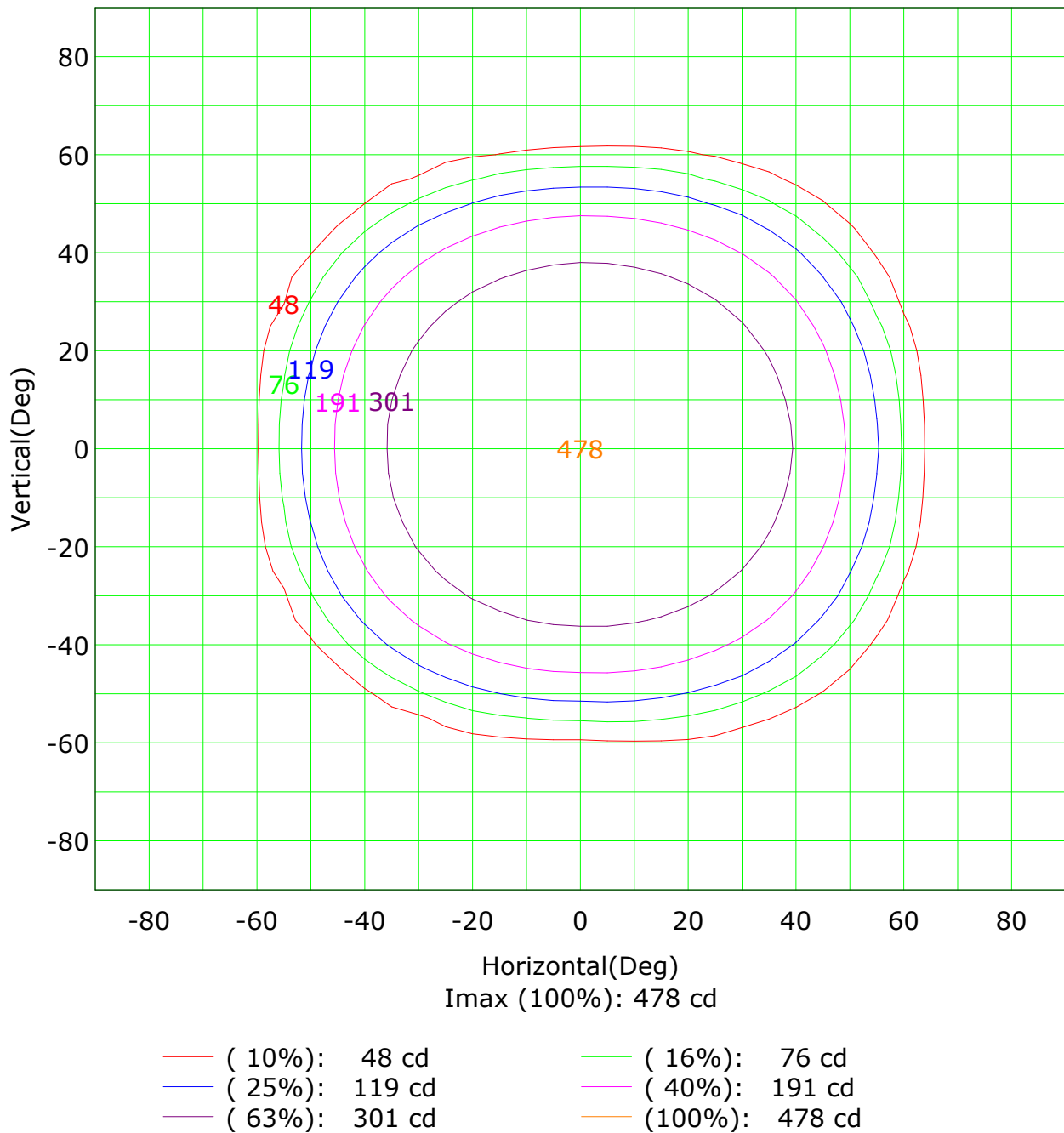
Spacing Criteria (0-180): 1.16
Spacing Criteria (90-270): 1.16
Spacing Criteria (Diagonal): 1.20



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:

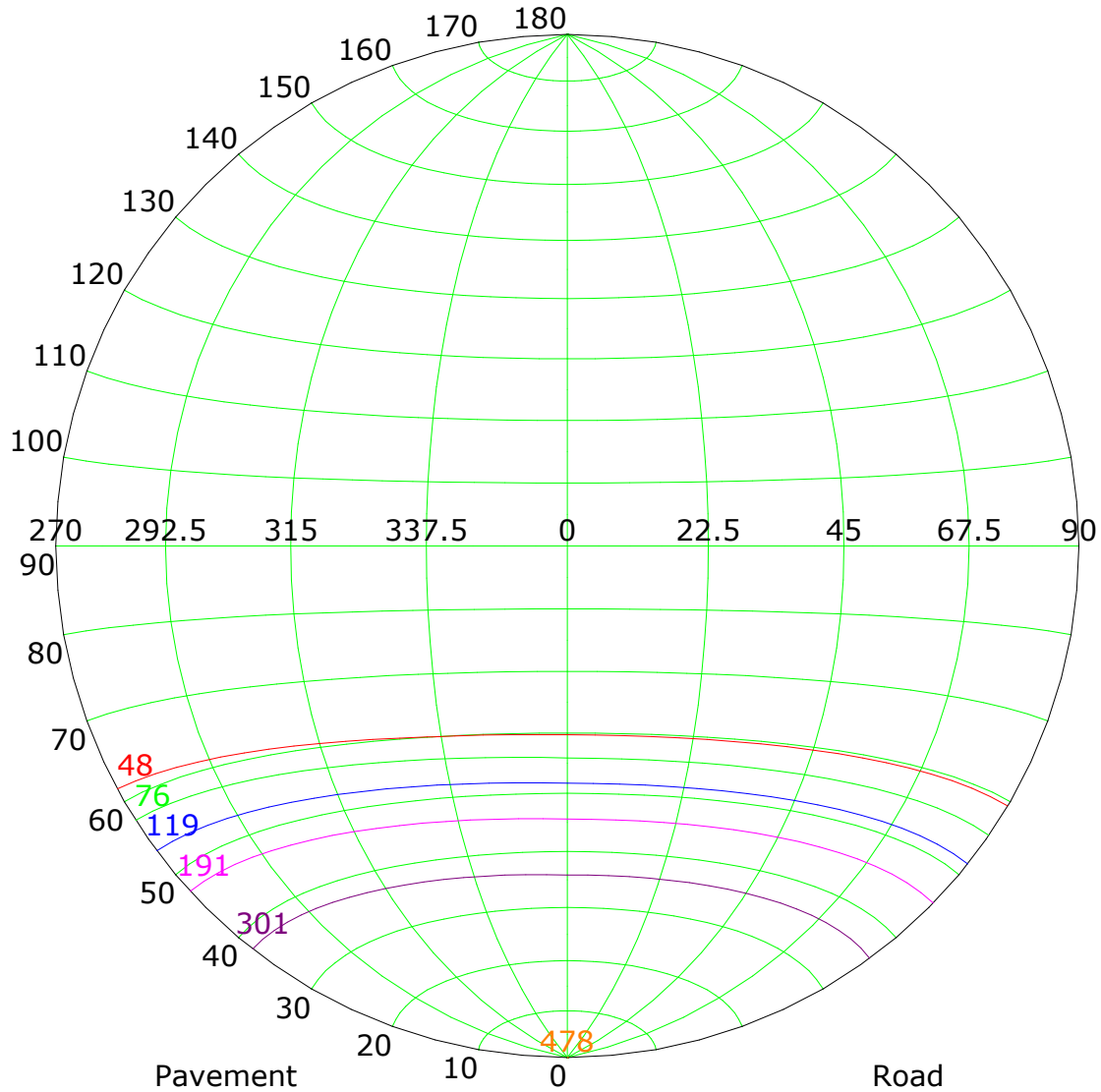
Isocandela (rectangle)



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%): 478 cd

(10%): 48 cd
(25%): 119 cd
(63%): 301 cd

(16%): 76 cd
(40%): 191 cd
(100%): 478 cd

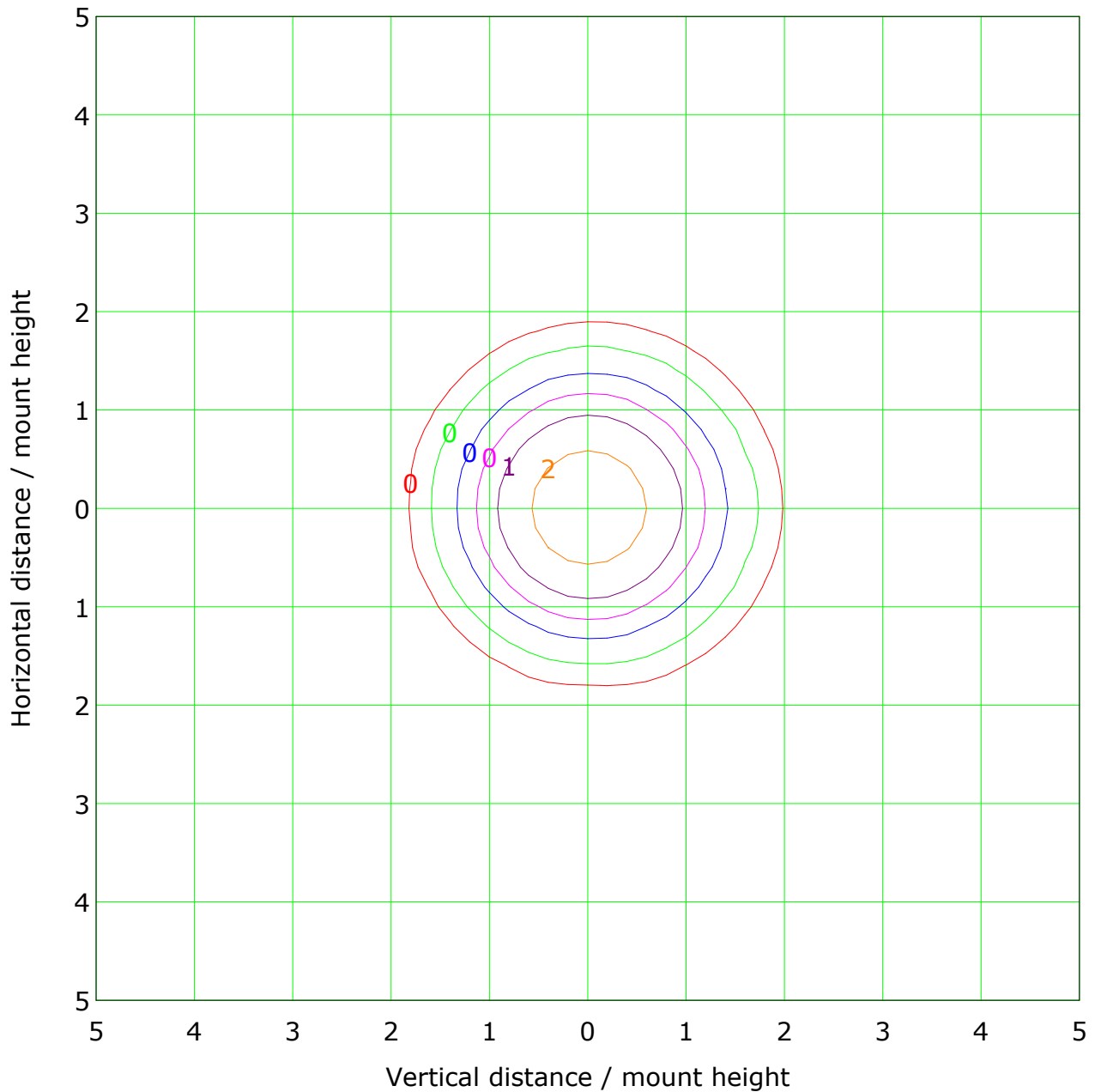
CIE: narrow - short
CIE: Non-cut-off luminaire
Max.At90: 28.778 cd/klm

IES: Non-cut-off
Max.At80: 5566517739520.000 cd/klm
Max.80-90: 93927382658804581000000000000.0

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:

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 4.8 lx

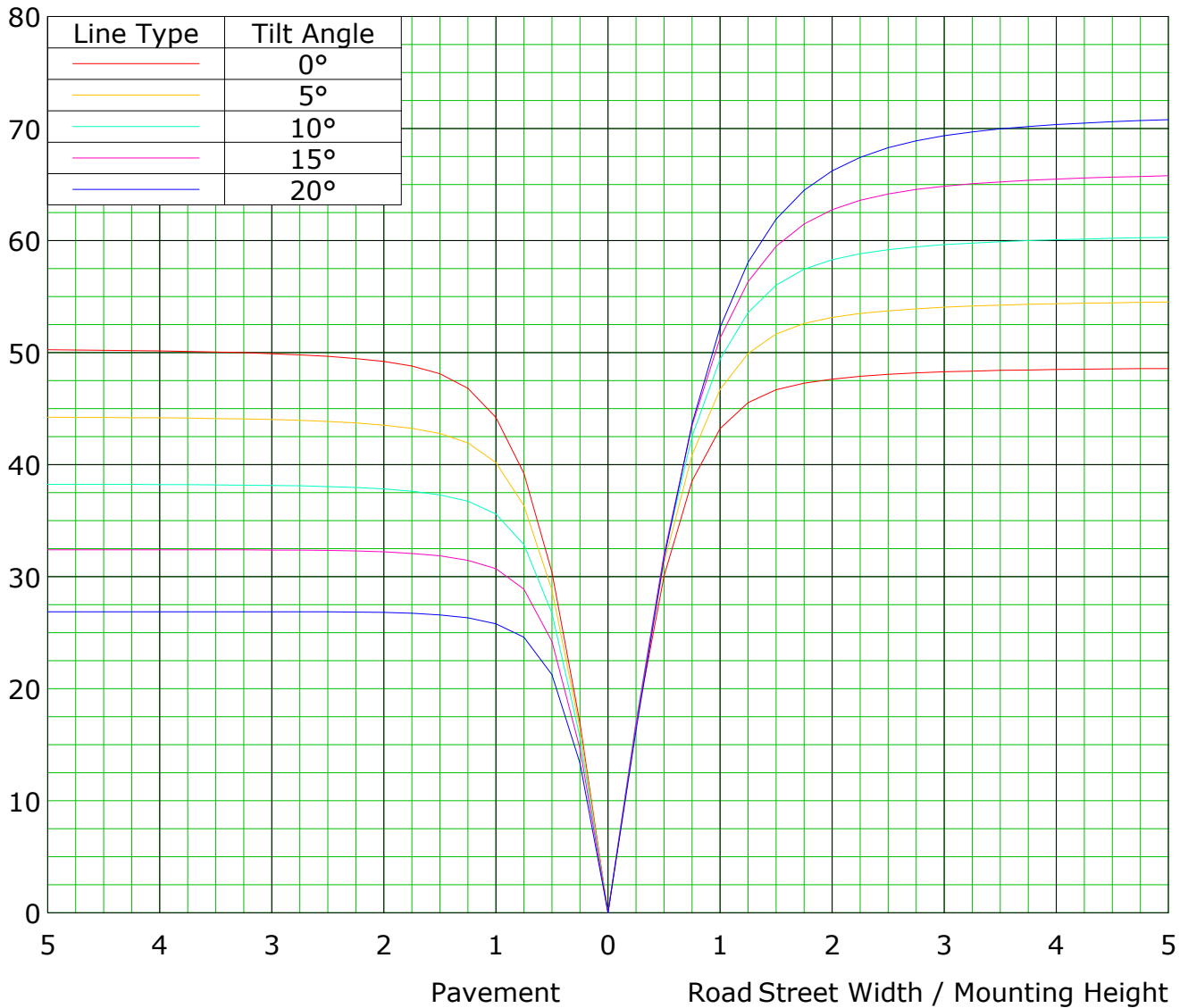
(1%): 0.0 lx	(2%): 0.1 lx
(5%): 0.2 lx	(10%): 0.5 lx
(20%): 1.0 lx	(50%): 2.4 lx
(100%): 4.8 lx	

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(%)

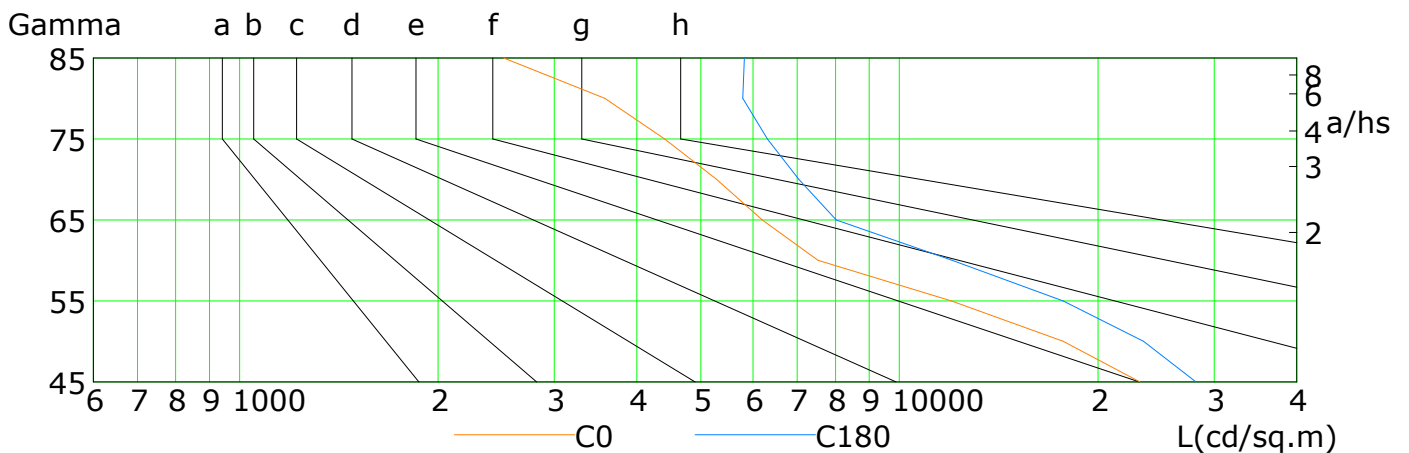
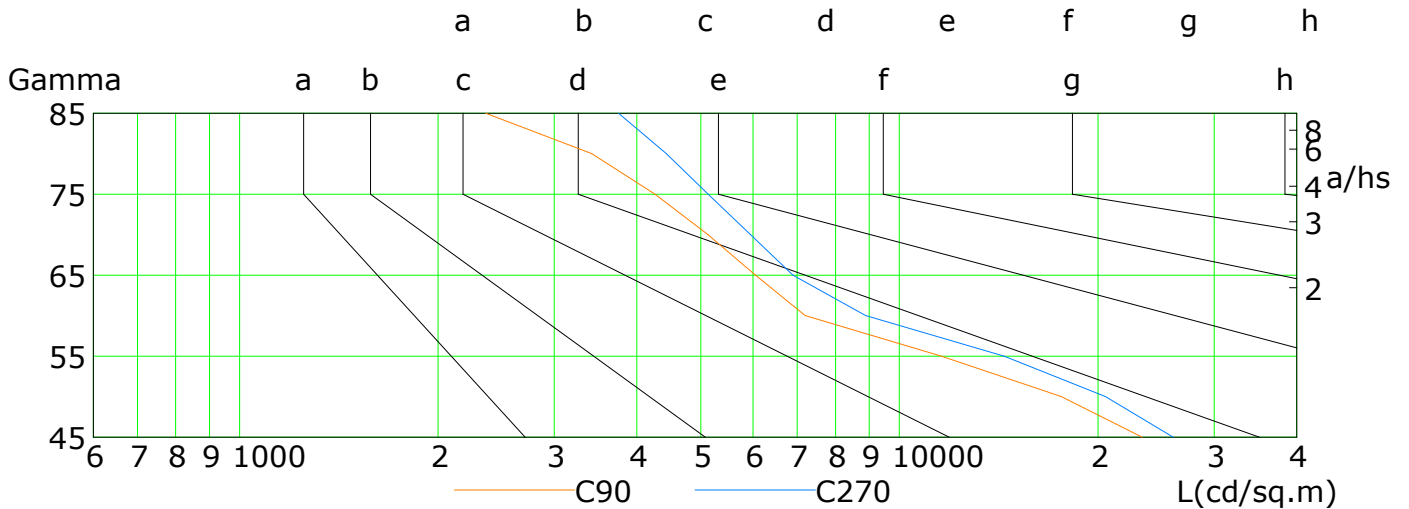


C Plane (°):0.0-360.0: 90.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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



L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	23164	17716	11988	7529	6199	5280	4407	3579	2513
C90	23340	17595	11579	7198	6054	5125	4263	3417	2361
C180	28137	23449	17717	12020	8022	7036	6306	5787	5822
C270	26016	20532	14422	8891	6895	5944	5131	4431	3755

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:5.0

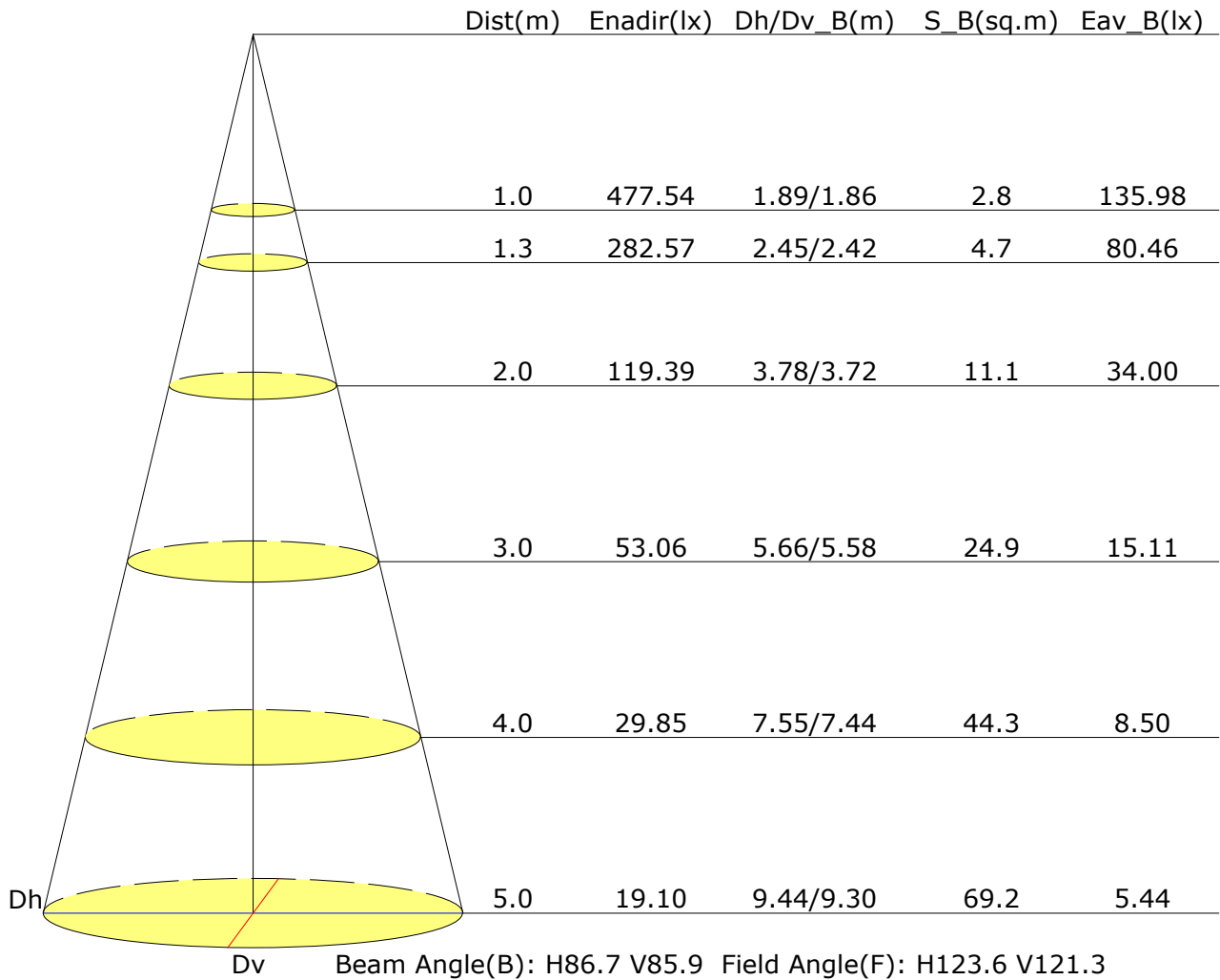
Test Device: GPM-1600L

Distance: 7.172 m [K=1.0000]

Humidity:

Inspector:

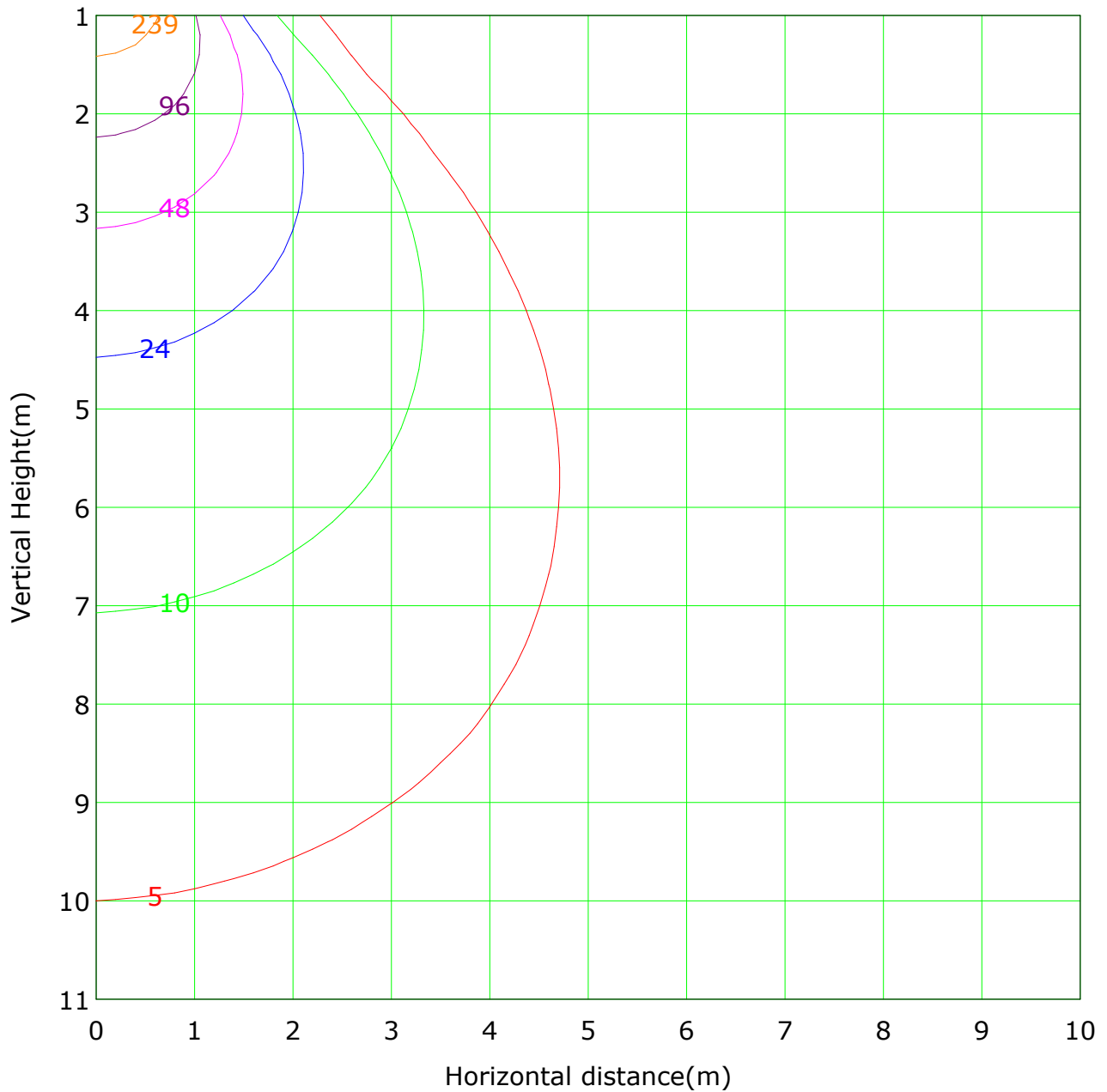
Illuminance at a Distance



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: 477.5 lx

— (1%): 4.8 lx	— (2%): 9.6 lx
— (5%): 23.9 lx	— (10%): 47.8 lx
— (20%): 95.5 lx	— (50%): 238.8 lx
— (100%): 477.5 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

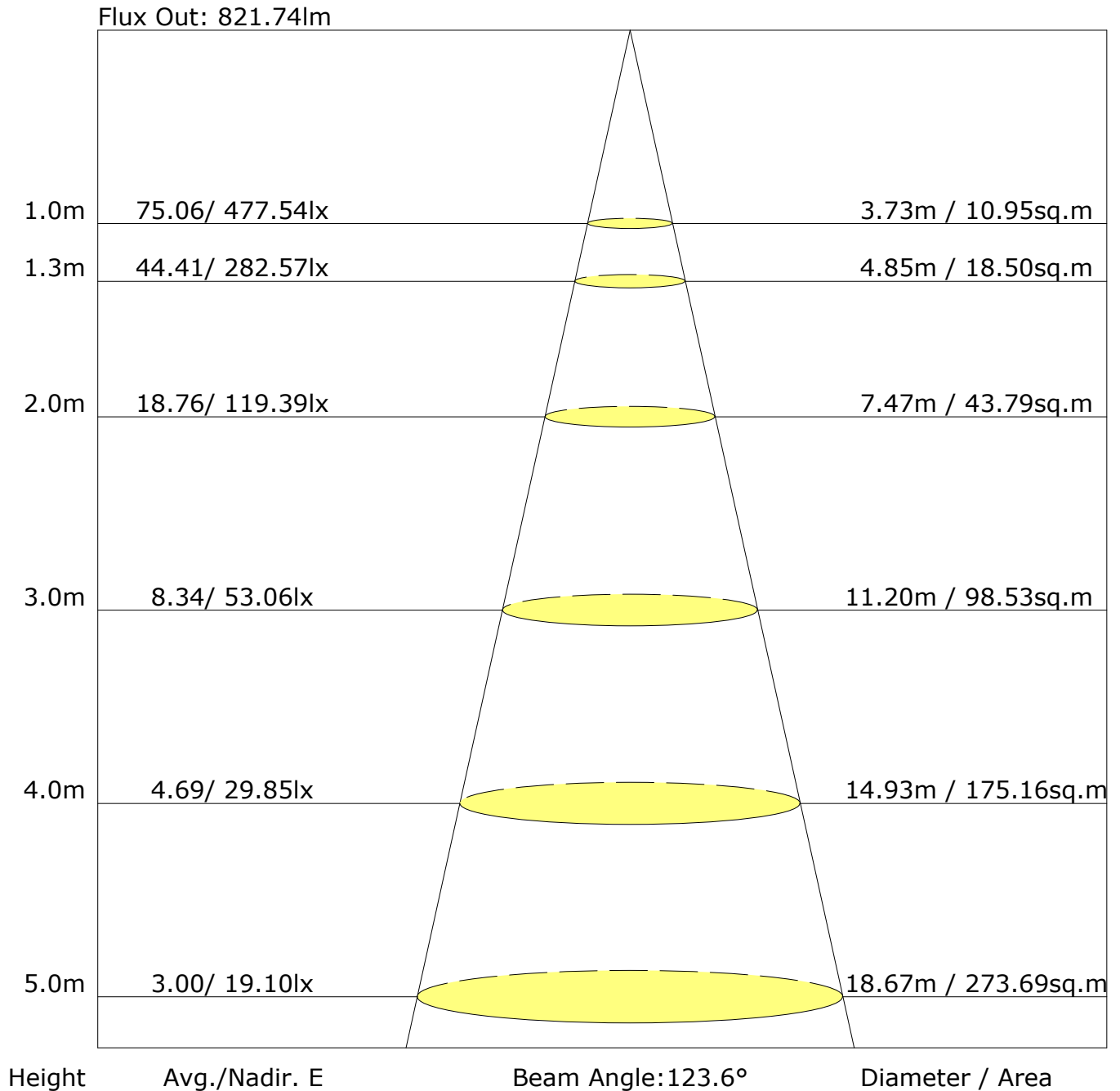
Vertical plane	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90
Flux(T)	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.5	0.6	0.6	0.5	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0
Flux(E)	0.0	0.0	1.4	14.8	40.0	71.7	101.8	123.9	134.7	133.2	119.8	95.1	63.1	31.6	8.7	0.0	0.0	0.0	940

Horizontal plane

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

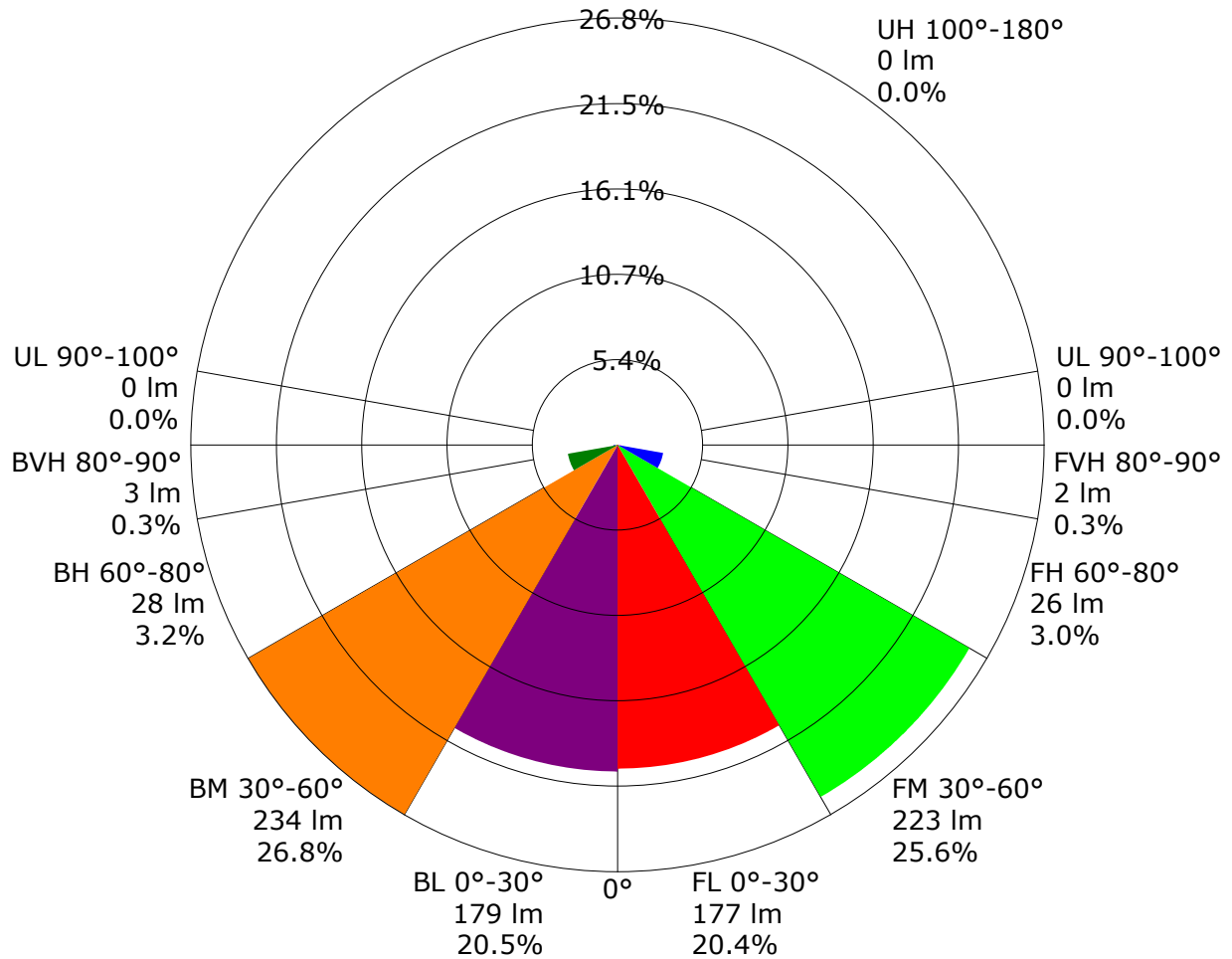
Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	20.5	21.7	20.8	21.9	22.1	20.8	21.9	21.0	22.1	22.4
3H	20.7	21.8	21.1	22.0	22.3	21.0	22.0	21.3	22.3	22.5
4H	20.8	21.8	21.2	22.1	22.4	21.1	22.1	21.4	22.3	22.6
6H	20.9	21.8	21.2	22.1	22.4	21.1	22.0	21.5	22.3	22.6
8H	20.9	21.7	21.2	22.0	22.4	21.1	22.0	21.5	22.3	22.6
12H	20.9	21.7	21.2	22.0	22.3	21.1	22.0	21.5	22.3	22.6
X=4H Y=2H	20.6	21.6	20.9	21.8	22.1	20.8	21.8	21.1	22.1	22.3
3H	20.9	21.8	21.3	22.1	22.4	21.2	22.0	21.5	22.3	22.6
4H	21.1	21.8	21.5	22.2	22.5	21.3	22.1	21.7	22.4	22.8
6H	21.2	21.8	21.6	22.2	22.6	21.4	22.1	21.9	22.5	22.9
8H	21.2	21.8	21.7	22.2	22.6	21.5	22.1	21.9	22.5	22.9
12H	21.2	21.8	21.7	22.2	22.6	21.5	22.0	21.9	22.4	22.9
X=8H Y=4H	21.1	21.7	21.5	22.1	22.5	21.3	21.9	21.8	22.3	22.7
6H	21.3	21.8	21.7	22.2	22.6	21.5	22.0	22.0	22.4	22.9
8H	21.3	21.8	21.8	22.2	22.7	21.6	22.0	22.1	22.4	22.9
12H	21.4	21.7	21.9	22.2	22.7	21.6	22.0	22.1	22.5	23.0
X=12H Y=4H	21.1	21.6	21.5	22.0	22.5	21.3	21.8	21.8	22.3	22.7
6H	21.3	21.7	21.8	22.1	22.6	21.5	21.9	22.0	22.4	22.9
8H	21.4	21.7	21.8	22.2	22.7	21.6	21.9	22.1	22.4	22.9
Variations with the observer position at spacings:										
S=1.0H	+0.8/-1.4					+0.7/-1.2				
S=1.5H	+1.7/-2.9					+1.8/-2.8				
S=2.0H	+3.2/-3.6					+3.3/-3.7				

Calculate in accordance with CIE Pub.117. The table is revised with 871lm ($8\log(F/F_0) = -0.5$).

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

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	0.70	0.80	0.86	0.90	0.96	1.00	1.02	1.05	1.07	
	0.30		0.64	0.74	0.80	0.85	0.91	0.95	0.98	1.02	1.05	
	0.20		0.60	0.69	0.76	0.81	0.88	0.92	0.95	1.00	1.03	
0.50	0.50	0.20	0.69	0.78	0.84	0.88	0.93	0.96	0.99	1.02	1.03	
	0.30		0.63	0.73	0.79	0.83	0.89	0.93	0.96	0.99	1.01	
	0.20		0.59	0.69	0.75	0.80	0.86	0.90	0.93	0.97	0.99	
0.30	0.50	0.20	0.68	0.76	0.82	0.85	0.90	0.93	0.95	0.98	1.00	
	0.30		0.63	0.72	0.78	0.82	0.87	0.90	0.93	0.96	0.98	
	0.20		0.59	0.68	0.74	0.79	0.84	0.88	0.91	0.94	0.96	
0.00	0.00	0.00	0.57	0.66	0.72	0.76	0.81	0.84	0.87	0.90	0.92	
Rating:9W 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:

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	0.79	0.63	0.53	0.45	0.36	0.29	0.25	0.19	0.16	
	0.30		0.66	0.54	0.46	0.40	0.32	0.27	0.23	0.18	0.15	
	0.20		0.56	0.47	0.41	0.36	0.29	0.25	0.21	0.17	0.14	
0.50	0.50	0.20	0.76	0.60	0.50	0.43	0.34	0.31	0.23	0.18	0.15	
	0.30		0.64	0.52	0.44	0.38	0.31	0.25	0.22	0.17	0.14	
	0.20		0.56	0.46	0.40	0.35	0.28	0.24	0.21	0.16	0.13	
0.30	0.50	0.20	0.73	0.57	0.48	0.41	0.32	0.26	0.22	0.17	0.14	
	0.30		0.62	0.51	0.43	0.37	0.29	0.24	0.21	0.16	0.13	
	0.20		0.55	0.45	0.39	0.34	0.27	0.23	0.20	0.15	0.13	
0.00	0.00	0.00	0.43	0.34	0.28	0.24	0.19	0.16	0.13	0.10	0.08	
Rating:9W 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:

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	0.18	
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	0.09	0.10	0.12	0.13	0.14	0.16	0.17	
0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Rating:9W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

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°): 649.05 lm

%lum = 74.5%
%lamp = 74.5%

cone flux(120°): 813.04 lm

%lum = 93.3%
%lamp = 93.3%

Candlepower Table

Unit: cd/klm

[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:

LED Average Luminance Report

Avg.L	cd/m ²
L 0-180(65) av	7110.34
L 0-180(75) av	5356.50
L 0-180(85) av	4167.52
L 90-270(65) av	6474.79
L 90-270(75) av	4697.11
L 90-270(85) av	3058.08
L 45(65) av	6792.56
L 45(75) av	5026.81
L 45(85) av	3612.80

Standard: GB/T 29293-2012