

Report No.:

Test Time: 2025-11-11 16:03

Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Lamp Catalog: 4000K

Number of Lamps:

Luminous Length (mm): 110

Luminous Height (mm):

Current: 0.0410 A

Power Factor: 0.9300

Luminaire Description:

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 110

Voltage: 232.10 V

Power: 8.85 W

Photometric Results

CIE Class: Direct

Measurement Flux: 923 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(50%): H86.6

Vertical Diffuse Angle(50%): V85.8

Luminous Efficacy (lm/w): 104.30

Max. Intensity: 546.41 cd/klm

S/MH(C0/C180): 1.16

Total Rated Lamp Lumens: 923.0 lm

Efficiency: 100%

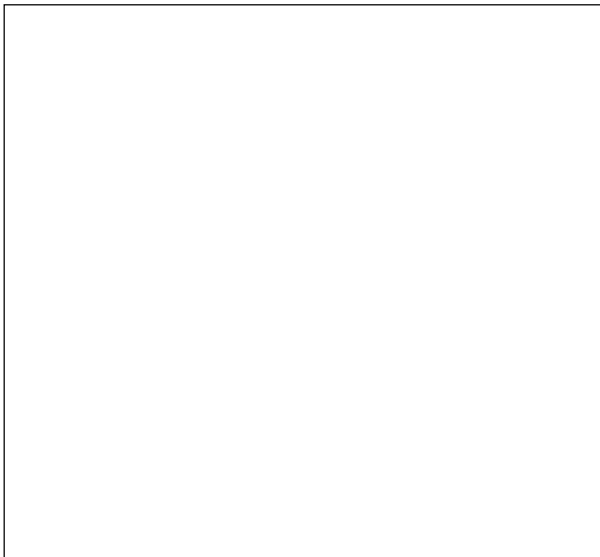
Upward Ratio: 0%

C0r0 Intensity: 546.4 cd/klm

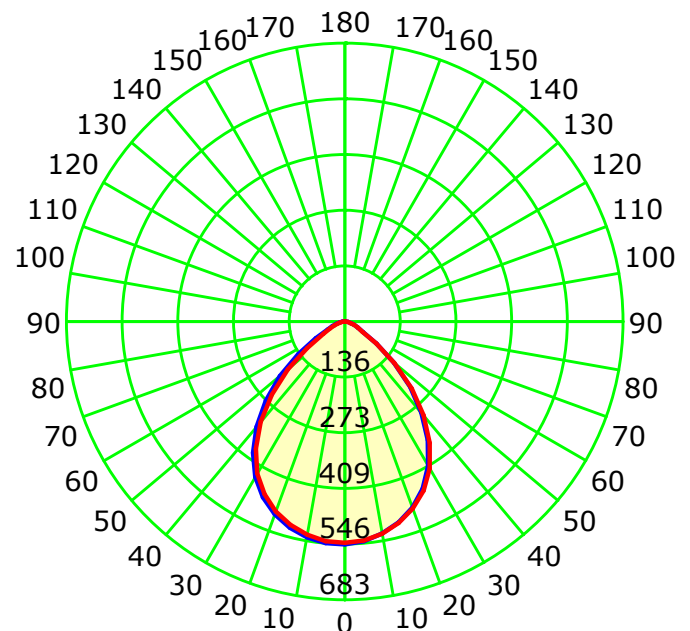
Pos of Max. Intensity: H0 V0

S/MH(C90/C270): 1.17

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd/klm

Average Diffuse Angle(50%): 86.2°

— 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

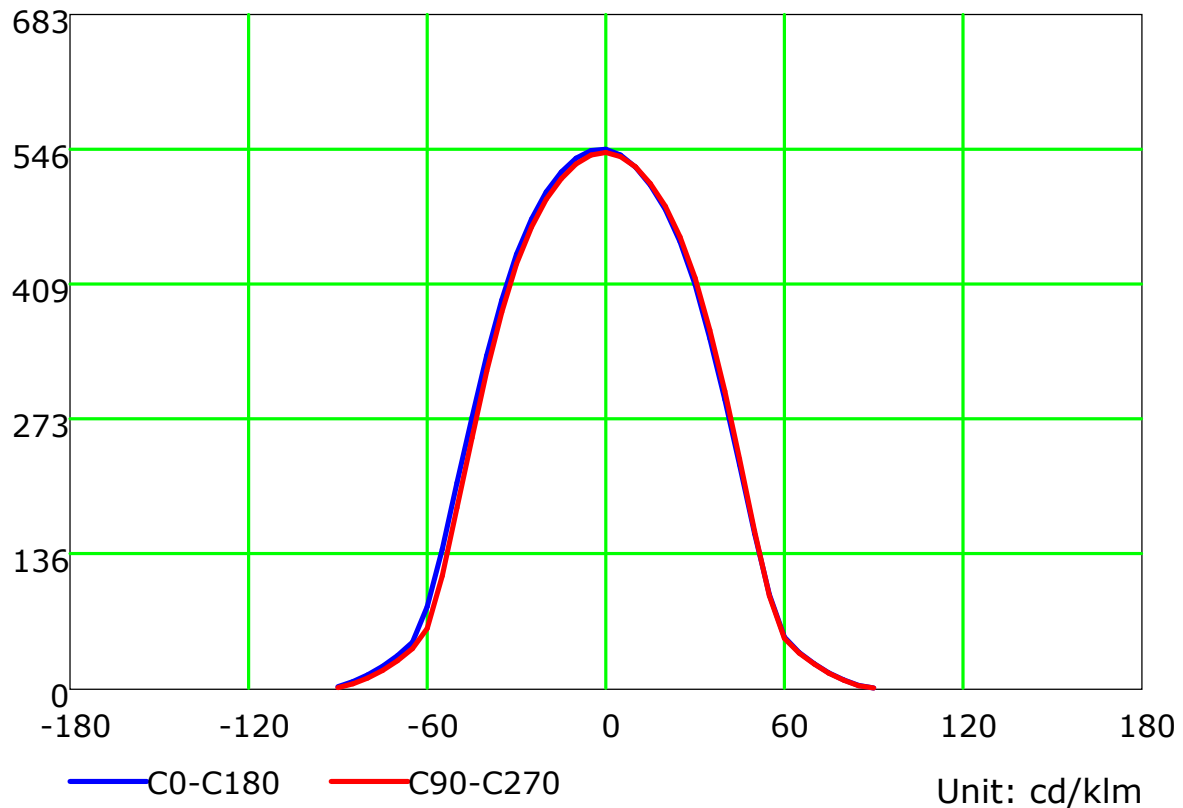
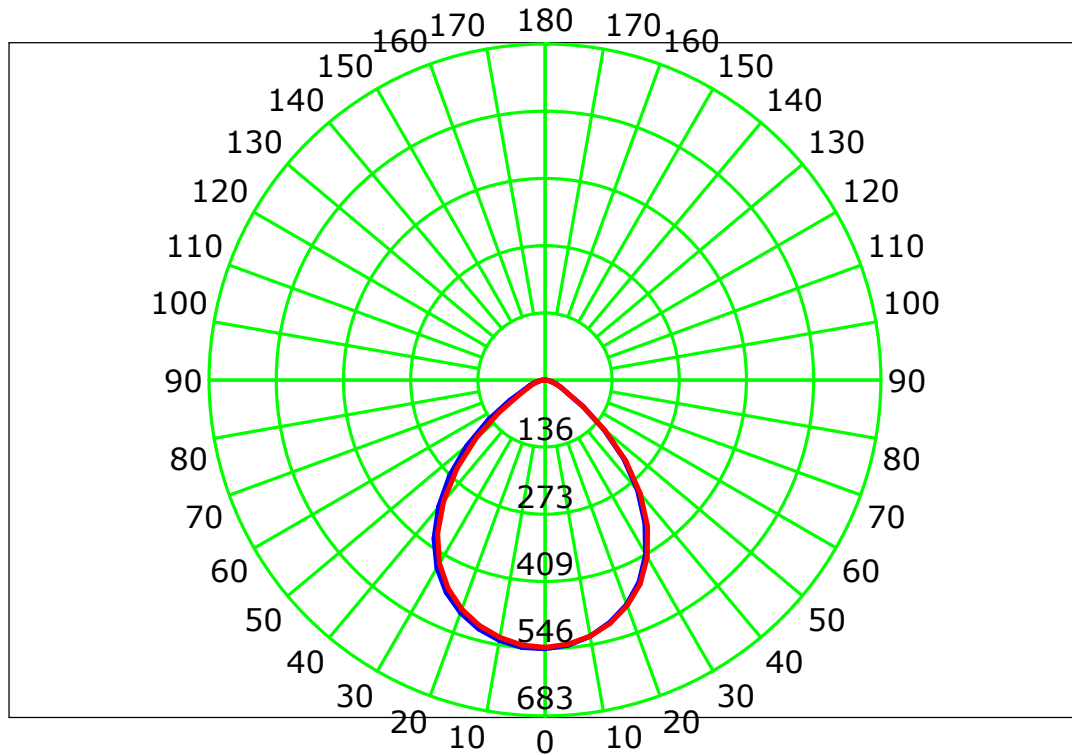
Test Device: GPM-1600L

Distance: 7.172 m [K=1.0000]

Humidity:

Inspector:

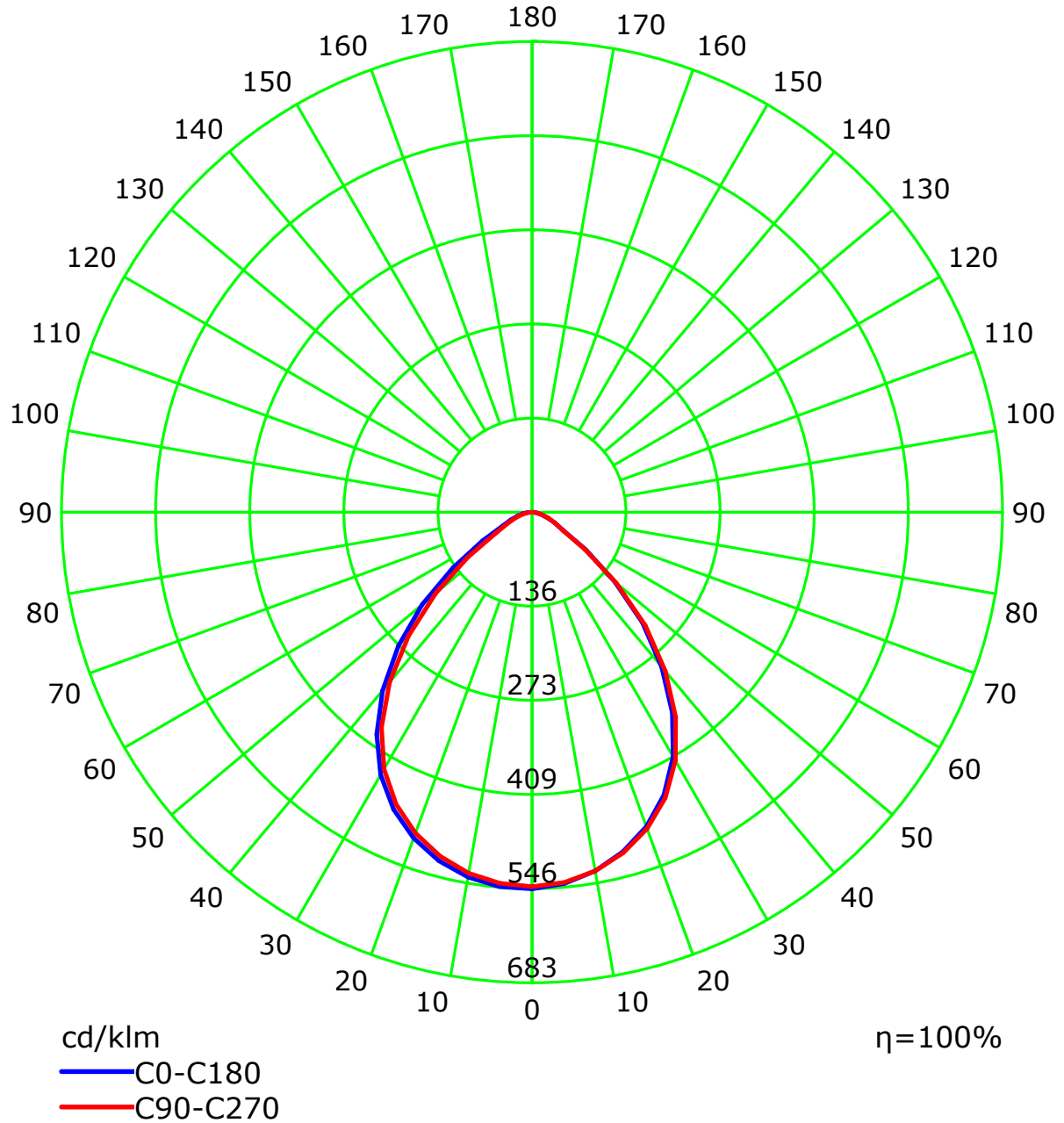
Luminous Intensity Distribution Curve



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)



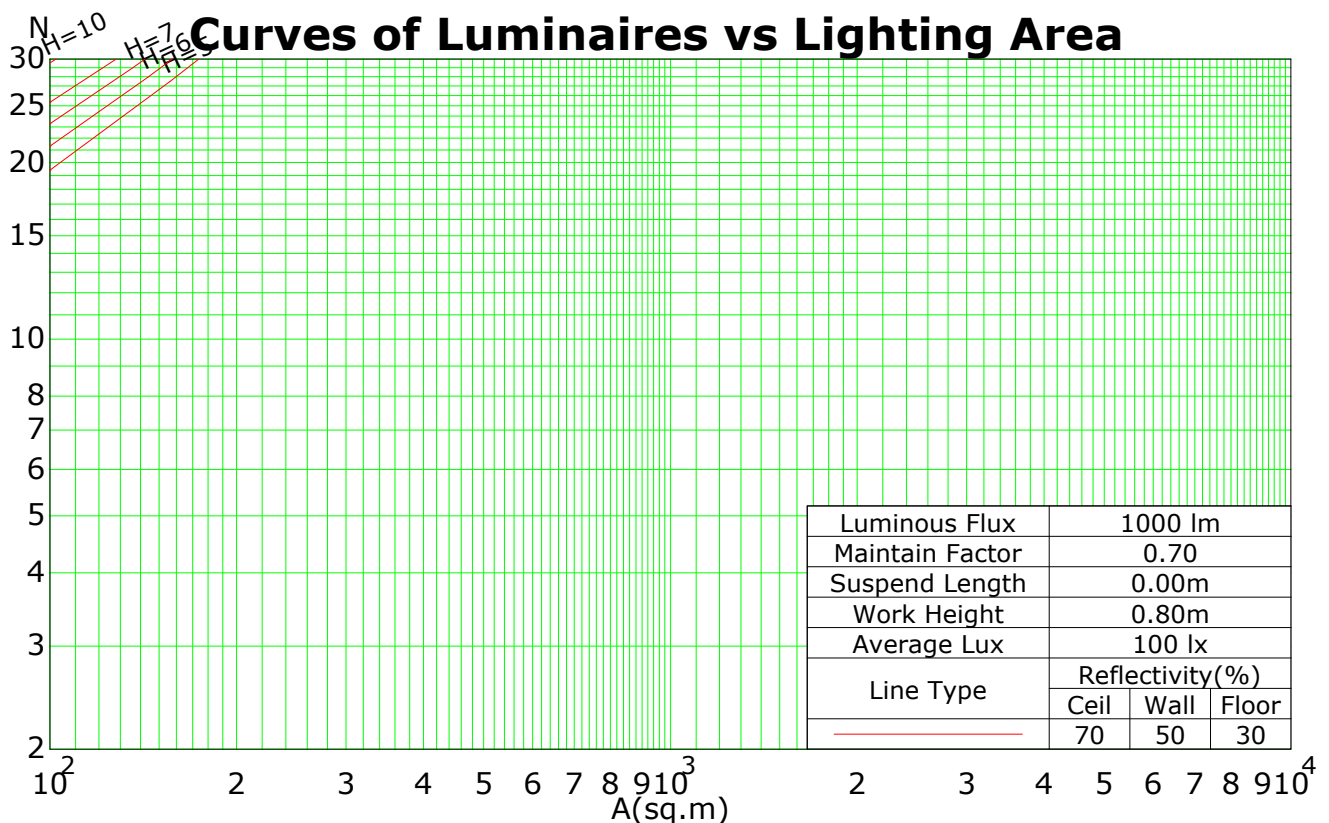
C Plane (°):0.0-360.0: 90.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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	1.08	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

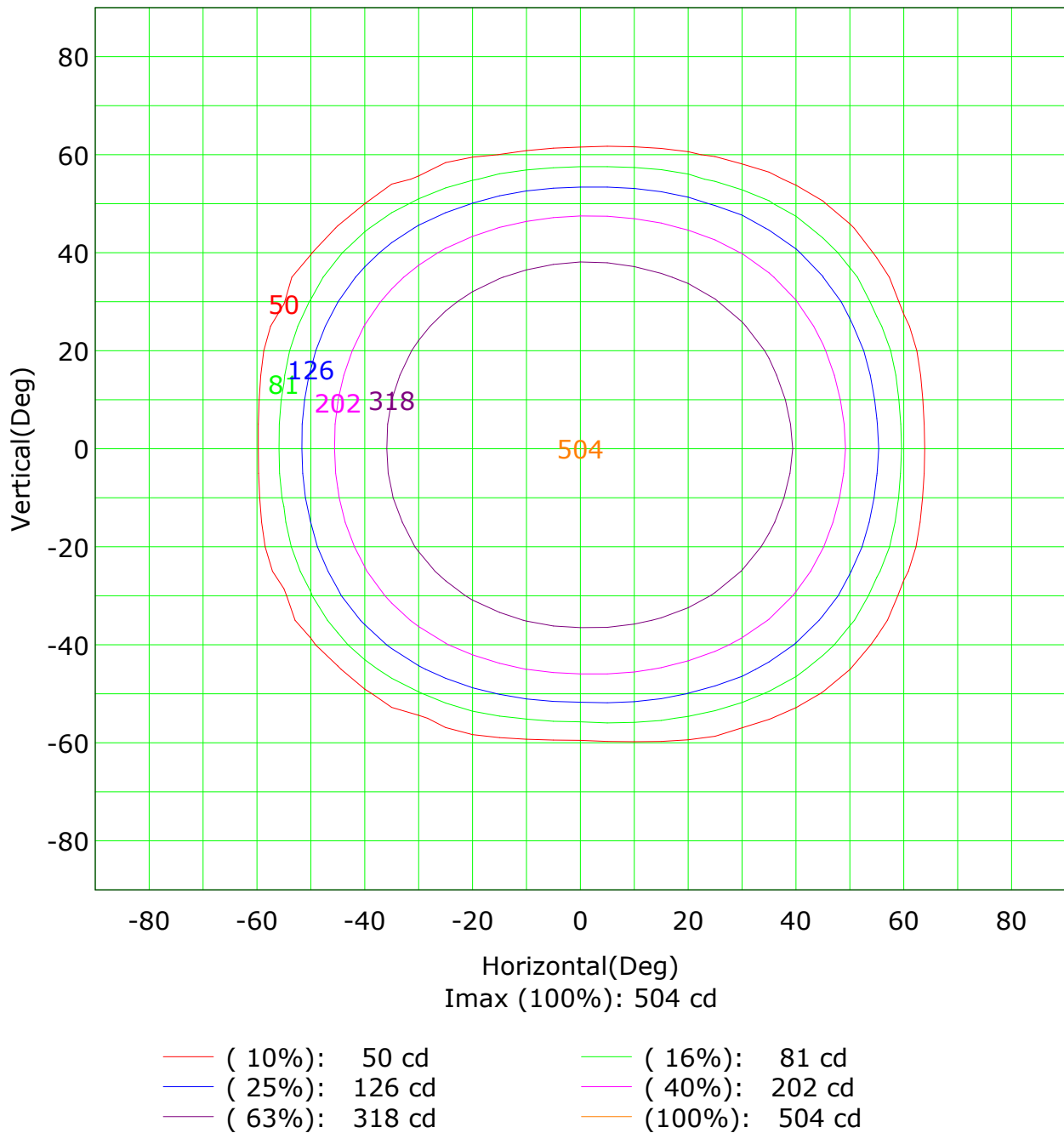
Spacing Criteria (0-180): 1.16
 Spacing Criteria (90-270): 1.17
 Spacing Criteria (Diagonal): 1.20



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:

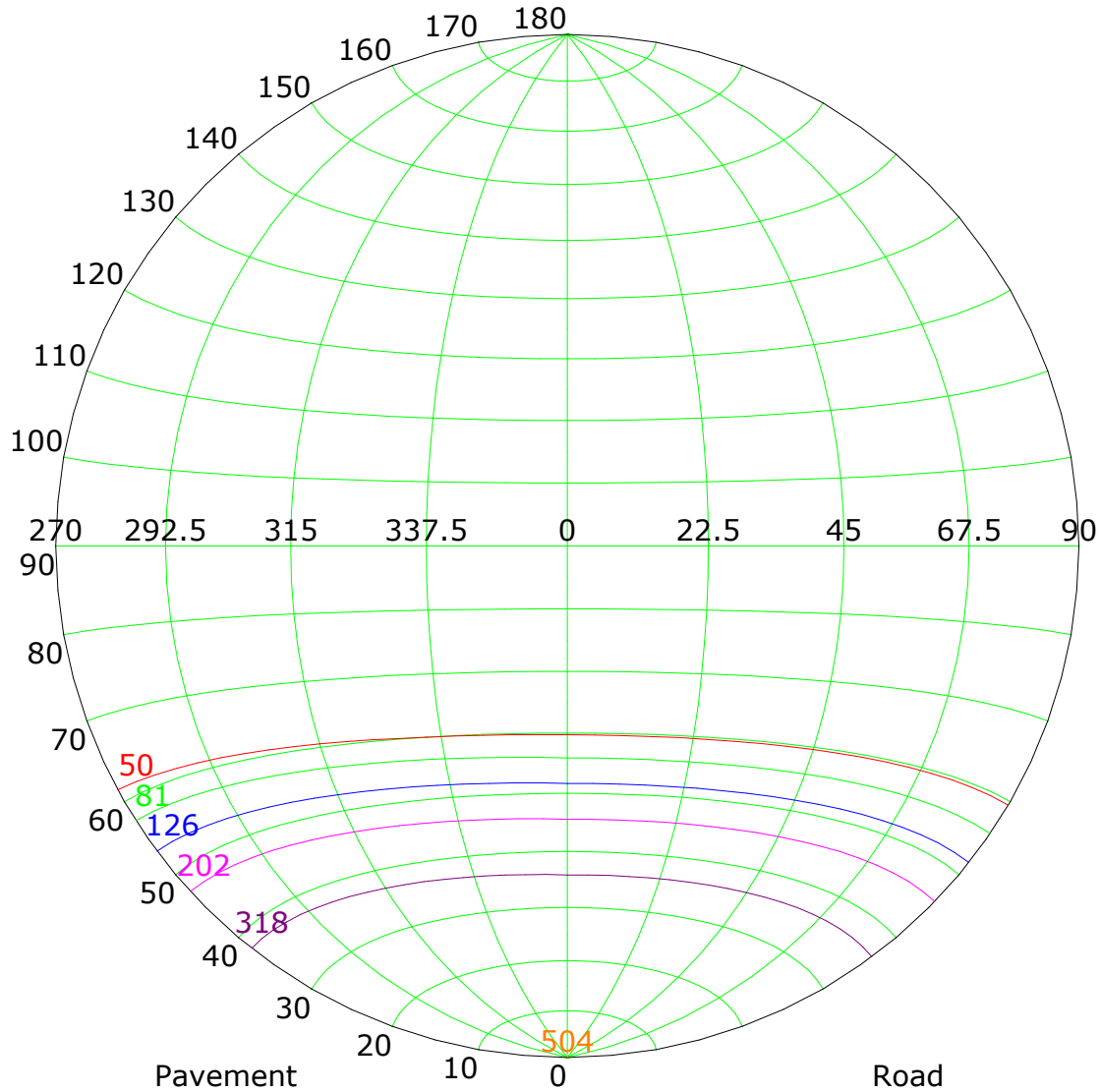
Isocandela (rectangle)



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%): 504 cd

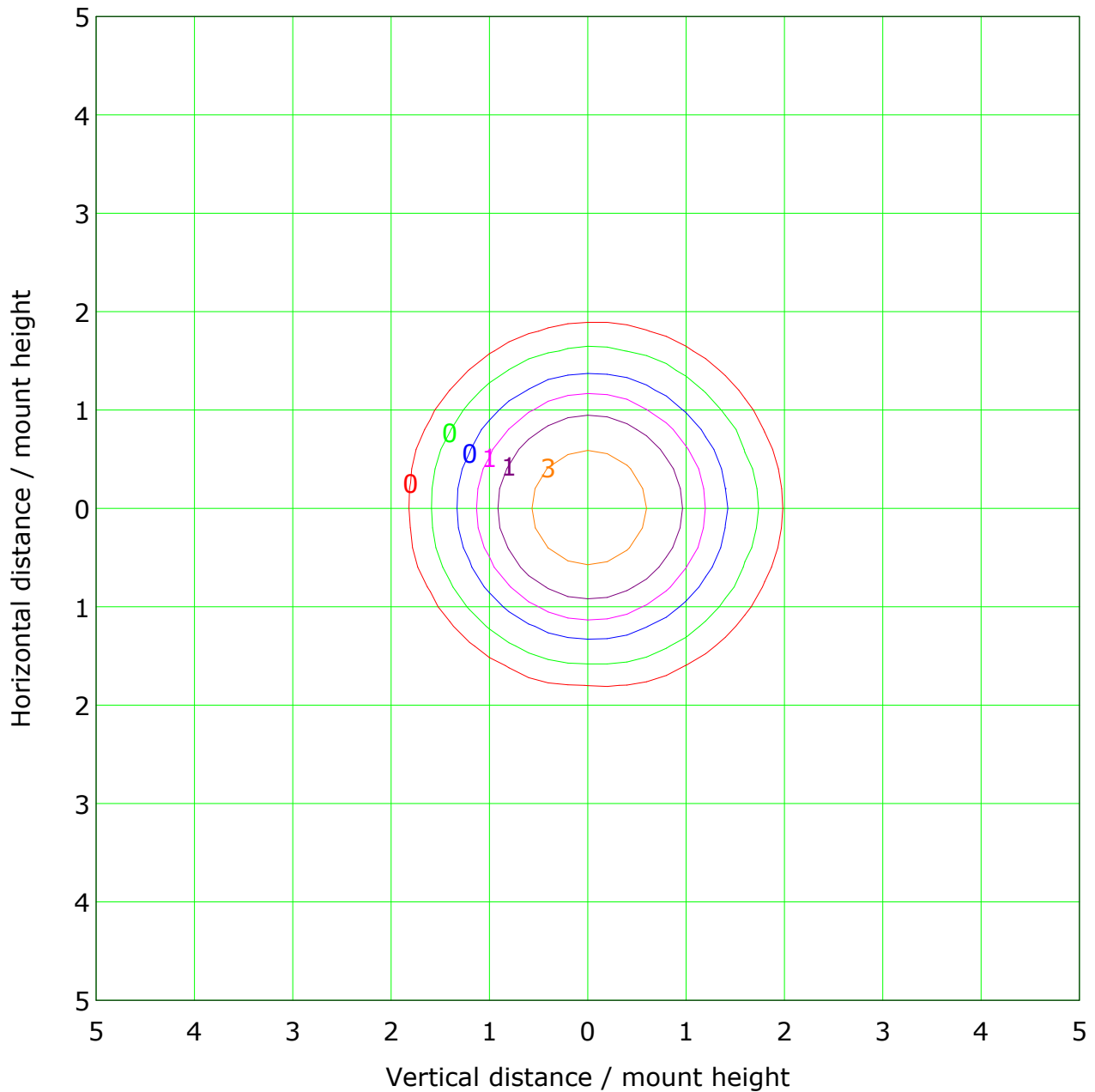
(10%): 50 cd
(25%): 126 cd
(63%): 318 cd

(16%): 81 cd
(40%): 202 cd
(100%): 504 cd

CIE: narrow - short
CIE: Non-cut-off luminaire
Max.At90: 27.149 cd/klm

IES: Non-cut-off
Max.At80: 1005258746662018400000.000 cd/klm
Max.80-90: 83705879336837841000000000000.0

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 5.0 lx

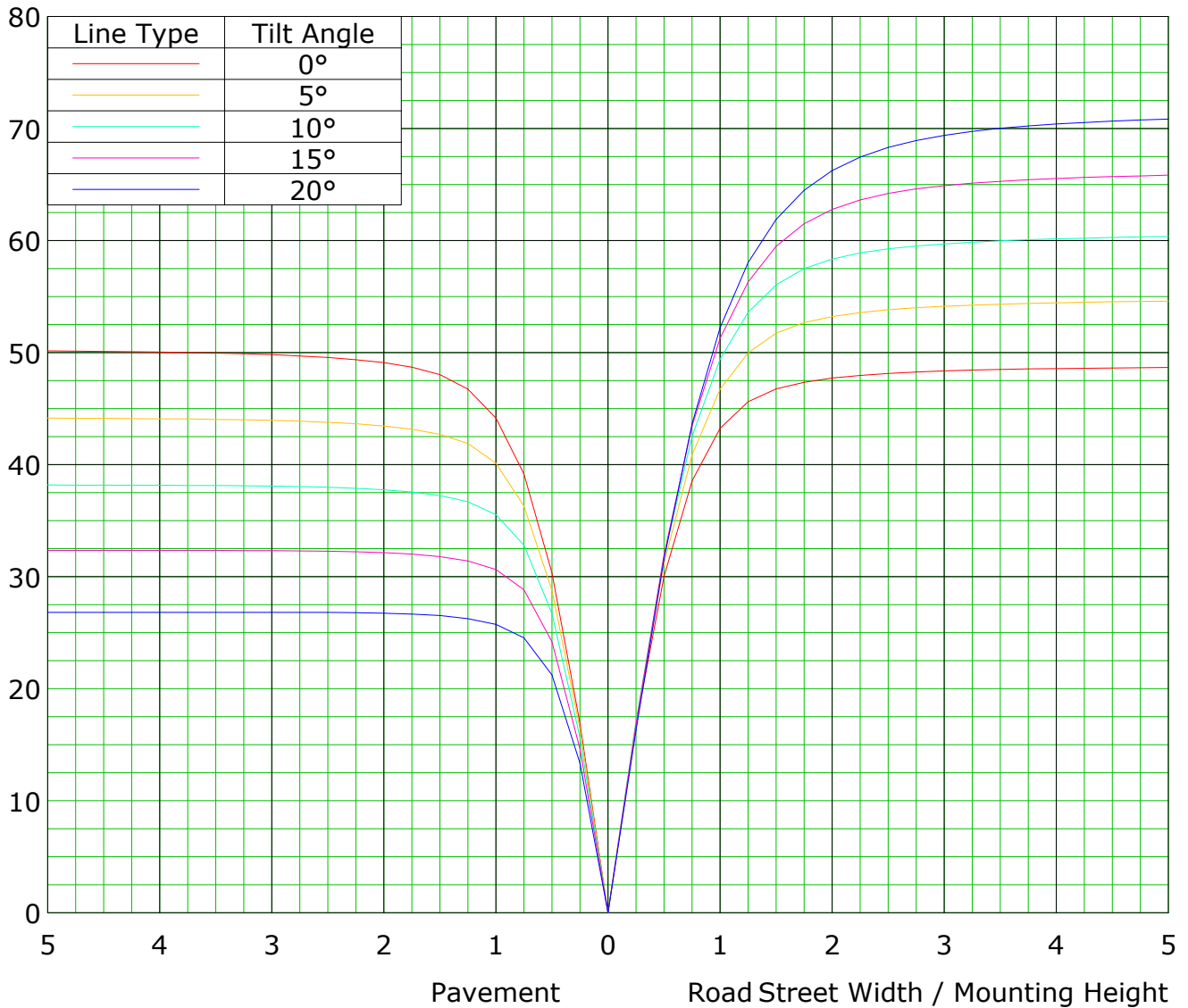
(1%): 0.1 lx	(2%): 0.1 lx
(5%): 0.3 lx	(10%): 0.5 lx
(20%): 1.0 lx	(50%): 2.5 lx
(100%): 5.0 lx	

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(%)



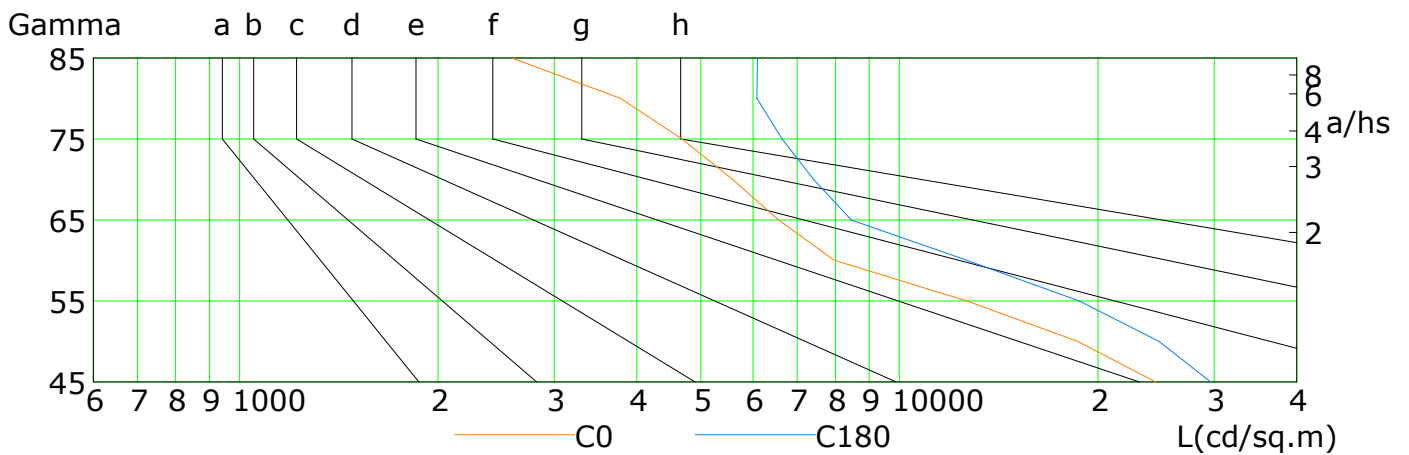
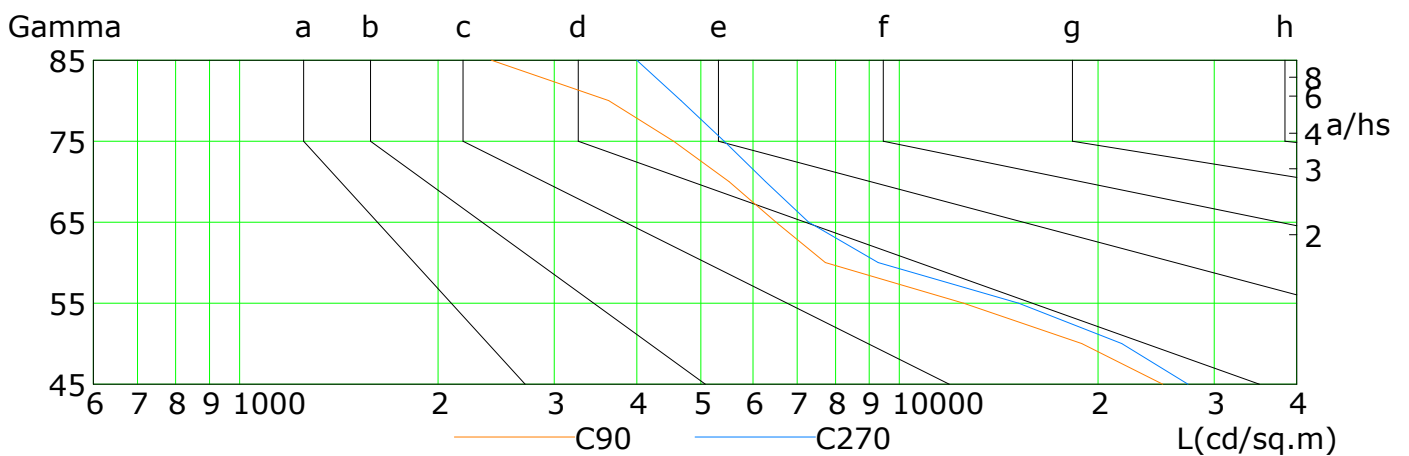
C Plane (°):0.0-360.0: 90.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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	24455	18622	12657	7965	6561	5589	4684	3779	2589
C90	25076	18903	12510	7726	6500	5519	4547	3627	2409
C180	29633	24742	18728	12650	8450	7411	6639	6082	6097
C270	27382	21729	15165	9283	7286	6266	5428	4664	4002

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:5.0

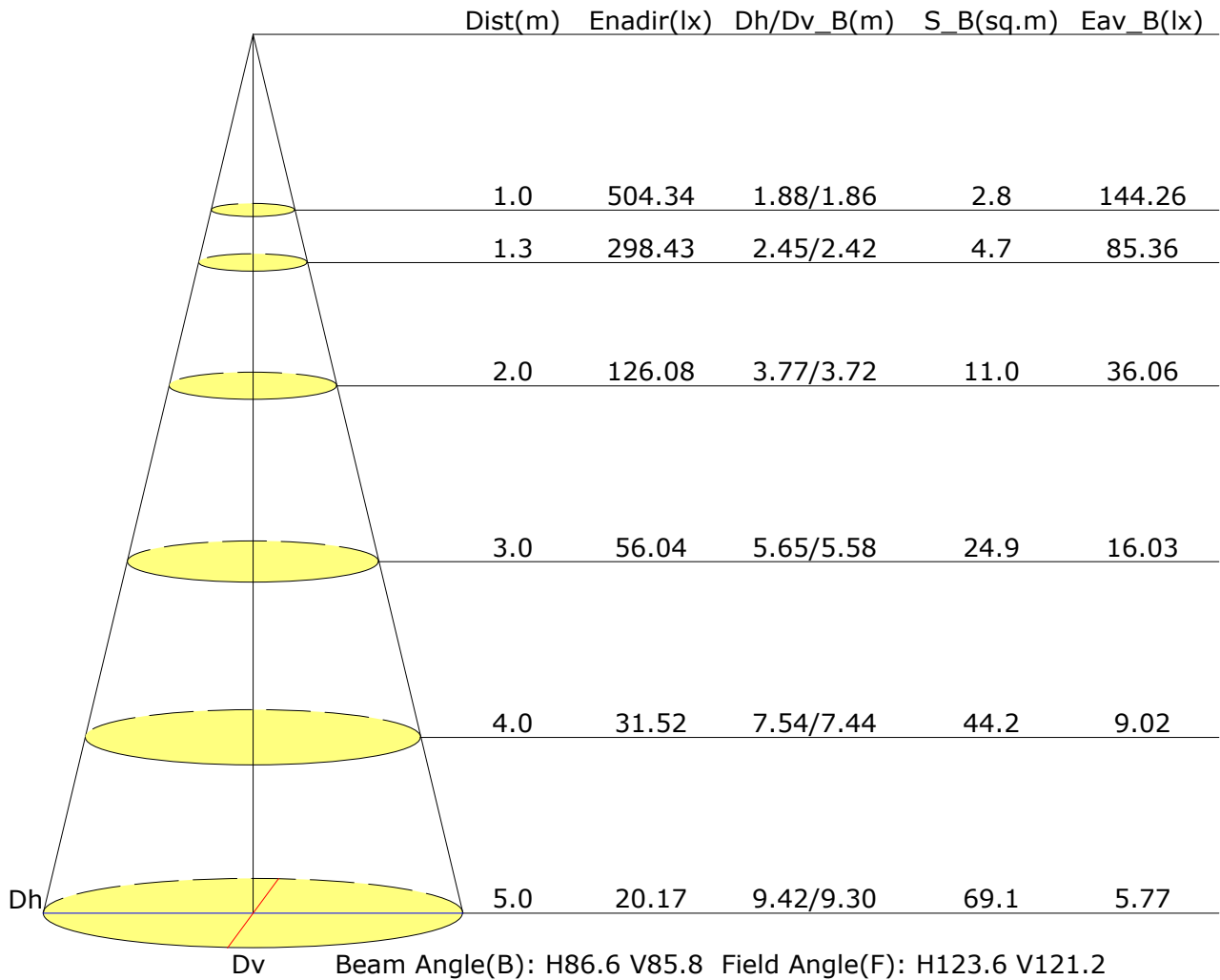
Test Device: GPM-1600L

Distance: 7.172 m [K=1.0000]

Humidity:

Inspector:

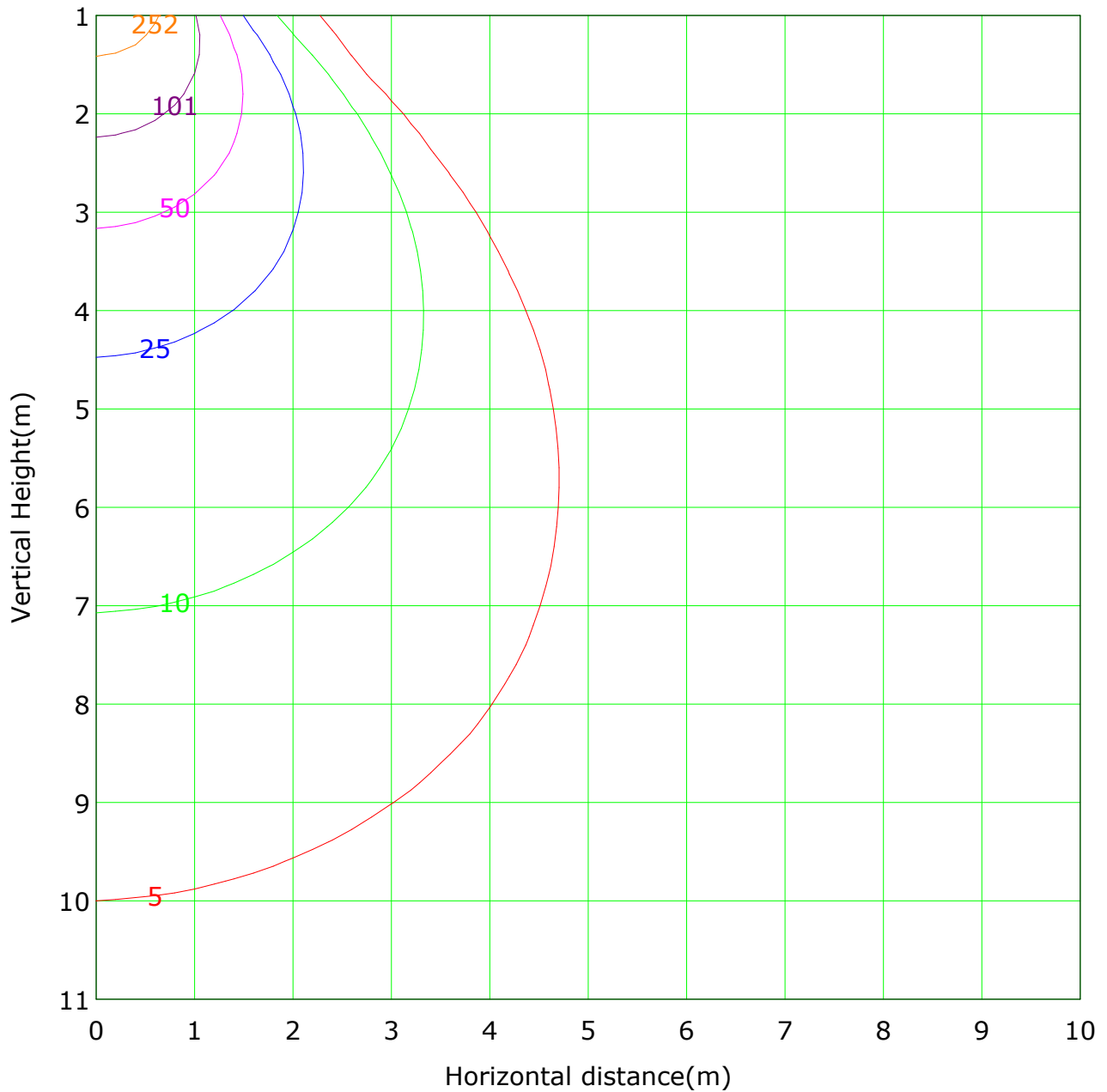
Illuminance at a Distance



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: 504.3 lx
 (1%): 5.0 lx (2%): 10.1 lx
 (5%): 25.2 lx (10%): 50.4 lx
 (20%): 100.9 lx (50%): 252.2 lx
 (100%): 504.3 lx

Area Flux Table

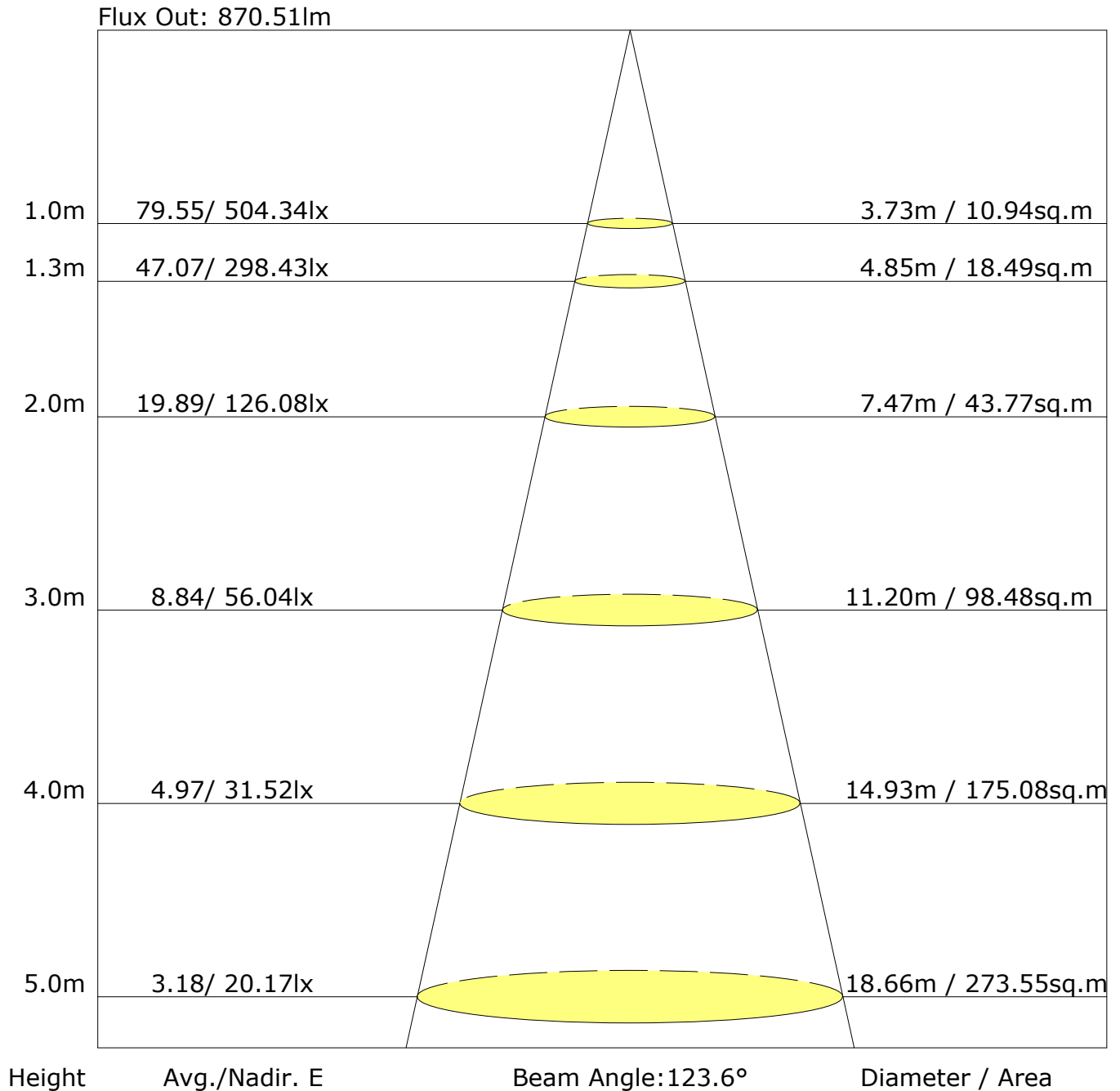
Unit: lm/klm

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	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	1.5	0.0
Flux(E)	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	4.9
	0.0	0.1	0.2	0.3	0.6	0.8	1.0	1.2	1.3	1.3	1.1	0.9	0.7	0.5	0.3	0.1	0.0	0.0	10.4
	0.0	0.1	0.3	0.5	0.9	1.5	2.4	3.1	3.6	3.5	2.9	2.1	1.3	0.8	0.4	0.2	0.1	0.0	23.6
	0.0	0.1	0.3	0.8	1.7	3.4	5.2	6.8	7.6	7.5	6.4	4.7	2.8	1.3	0.6	0.3	0.1	0.0	49.7
	0.0	0.1	0.4	1.2	3.0	5.6	8.3	10.3	11.4	11.3	10.0	7.7	4.9	2.4	0.9	0.3	0.1	0.0	78.0
	0.0	0.2	0.5	1.7	4.3	7.6	10.7	12.9	14.0	13.9	12.6	10.1	6.8	3.5	1.2	0.4	0.1	0.0	100.7
	0.0	0.2	0.6	2.2	5.3	8.9	12.2	14.4	15.5	15.5	14.2	11.7	8.1	4.4	1.6	0.5	0.1	0.0	115.4
	0.0	0.2	0.7	2.5	5.8	9.6	12.9	15.2	16.3	16.2	14.9	12.3	8.8	4.8	1.8	0.5	0.1	0.0	122.7
	0.0	0.2	0.7	2.5	5.8	9.6	12.9	15.2	16.3	16.2	14.8	12.3	8.7	4.8	1.7	0.5	0.1	0.0	122.3
	0.0	0.2	0.6	2.2	5.2	8.8	12.1	14.3	15.4	15.3	14.0	11.5	8.0	4.3	1.5	0.5	0.1	0.0	114.2
	0.0	0.2	0.5	1.7	4.2	7.4	10.4	12.7	13.7	13.6	12.3	9.9	6.7	3.4	1.2	0.4	0.1	0.0	98.4
	0.0	0.1	0.4	1.1	2.9	5.4	7.9	9.9	10.9	10.8	9.6	7.4	4.7	2.2	0.8	0.3	0.1	0.0	74.7
	0.0	0.1	0.3	0.7	1.6	3.1	4.9	6.3	7.0	6.9	5.9	4.3	2.6	1.2	0.6	0.3	0.1	0.0	46.0
	0.0	0.1	0.3	0.5	0.9	1.4	2.1	2.7	3.0	3.0	2.5	1.8	1.2	0.7	0.4	0.2	0.1	0.0	20.9
	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.1	1.1	1.1	1.0	0.8	0.6	0.4	0.3	0.1	0.0	0.0	9.4
	0.0	0.0	0.1	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.3	0.2	0.1	0.1	0.0	0.0	4.3
	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	0.0	0.0	0.0	0.0	1.2
Flux(T)	0.3	2.0	6.4	18.7	43.4	75.0	105.2	127.4	138.5	137.2	123.5	98.7	66.8	35.5	13.6	4.7	1.4	0.1	998
Flux(E)	0.0	0.0	1.4	14.8	39.9	71.5	101.7	123.9	135.0	133.6	119.9	95.1	63.0	31.5	8.7	0.0	0.0	0.0	940
	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90
	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:
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Gamma Plane (°): 0.0-90.0: 5.0
 Test Device: GPM-1600L
 Distance: 7.172 m [K=1.0000]
 Humidity:
 Inspector:

UGR Table

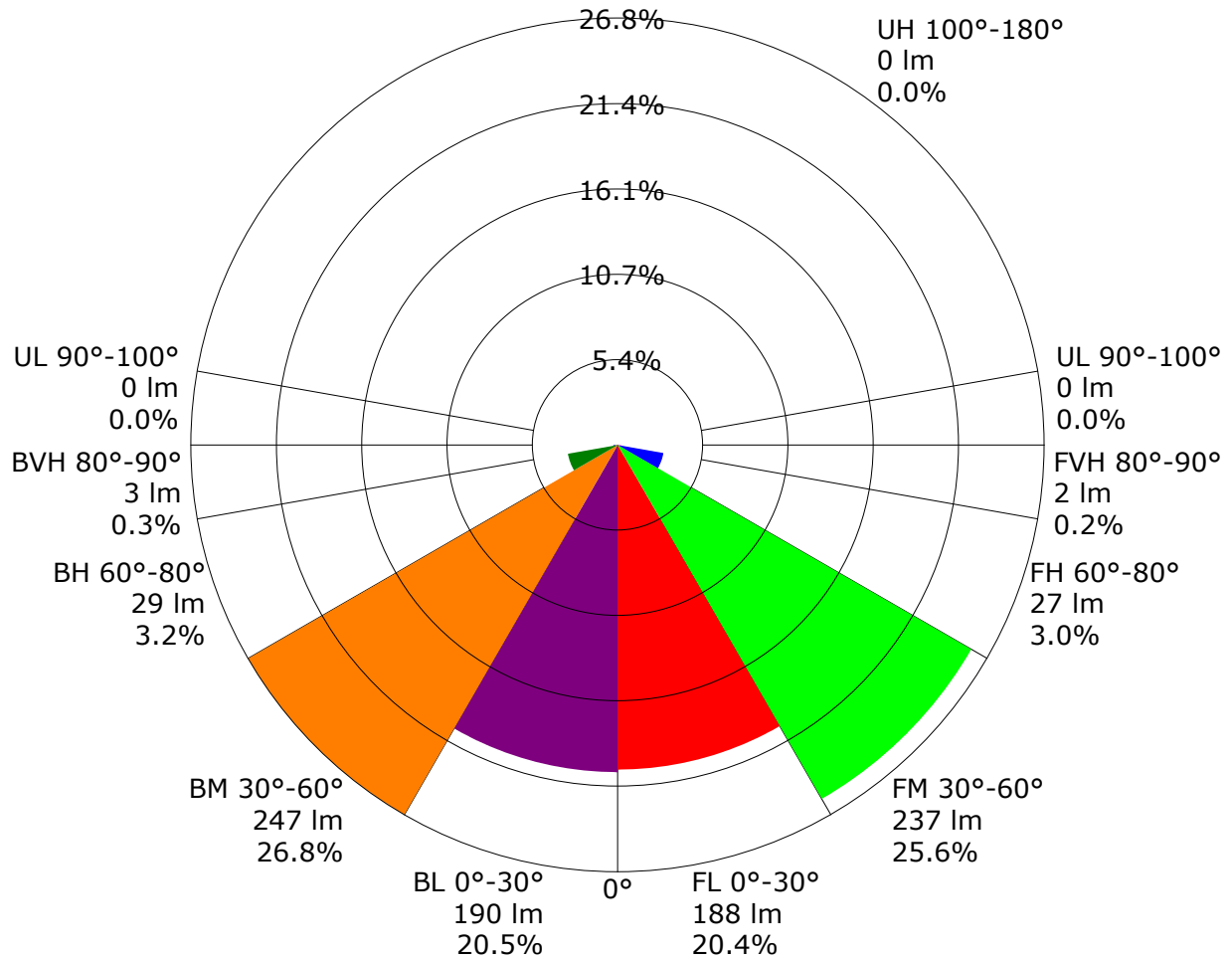
Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	20.7	21.9	21.0	22.1	22.3	21.0	22.1	21.3	22.3	22.6
3H	20.9	22.0	21.2	22.2	22.5	21.2	22.2	21.5	22.5	22.8
4H	21.0	22.0	21.3	22.3	22.5	21.3	22.3	21.6	22.5	22.8
6H	21.1	22.0	21.4	22.3	22.6	21.3	22.2	21.7	22.5	22.9
8H	21.1	21.9	21.4	22.2	22.6	21.3	22.2	21.7	22.5	22.8
12H	21.0	21.9	21.4	22.2	22.5	21.3	22.2	21.7	22.5	22.8
X=4H Y=2H	20.8	21.7	21.1	22.0	22.3	21.0	22.0	21.3	22.3	22.5
3H	21.1	22.0	21.5	22.3	22.6	21.4	22.2	21.7	22.5	22.9
4H	21.3	22.0	21.7	22.4	22.7	21.5	22.3	21.9	22.6	23.0
6H	21.4	22.0	21.8	22.4	22.8	21.6	22.3	22.1	22.7	23.1
8H	21.4	22.0	21.8	22.4	22.8	21.7	22.3	22.1	22.7	23.1
12H	21.4	21.9	21.9	22.4	22.8	21.7	22.2	22.1	22.6	23.1
X=8H Y=4H	21.3	21.9	21.7	22.3	22.7	21.5	22.1	22.0	22.5	22.9
6H	21.5	21.9	21.9	22.4	22.8	21.7	22.2	22.2	22.6	23.1
8H	21.5	21.9	22.0	22.4	22.9	21.8	22.2	22.3	22.7	23.1
12H	21.6	21.9	22.0	22.4	22.9	21.8	22.2	22.3	22.7	23.2
X=12H Y=4H	21.3	21.8	21.7	22.2	22.7	21.5	22.1	22.0	22.5	22.9
6H	21.5	21.9	21.9	22.3	22.8	21.7	22.1	22.2	22.6	23.1
8H	21.5	21.9	22.0	22.4	22.9	21.8	22.2	22.3	22.6	23.1
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 923lm ($8\log(F/F_0) = -0.3$).

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
<p>Rating:9W 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>											

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°): 687.67 lm

%lum = 74.5%
%lamp = 74.5%

cone flux(120°): 861.35 lm

%lum = 93.3%
%lamp = 93.3%

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 ²
L 0-180(65) av	7505.36
L 0-180(75) av	5661.44
L 0-180(85) av	4342.94
L 90-270(65) av	6893.27
L 90-270(75) av	4987.69
L 90-270(85) av	3205.05
L 45(65) av	7199.31
L 45(75) av	5324.57
L 45(85) av	3774.00

Standard: GB/T 29293-2012