

Report No.:

Test Time: 2025-03-12 09:04

Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Lamp Catalog: 3000K

Number of Lamps:

Luminous Length (mm): 32

Luminous Height (mm):

Current: 0.0310 A

Power Factor: 0.5200

Luminaire Description:

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 32

Voltage: 230.60 V

Power: 3.73 W

Photometric Results

CIE Class: Direct

Measurement Flux: 207.7 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(50%): H61.8

Vertical Diffuse Angle(50%): V61.7

Luminous Efficacy (lm/w): 55.68

Max. Intensity: 887.13 cd/klm

S/MH(C0/C180): 0.94

Total Rated Lamp Lumens: 207.7 lm

Efficiency: 100%

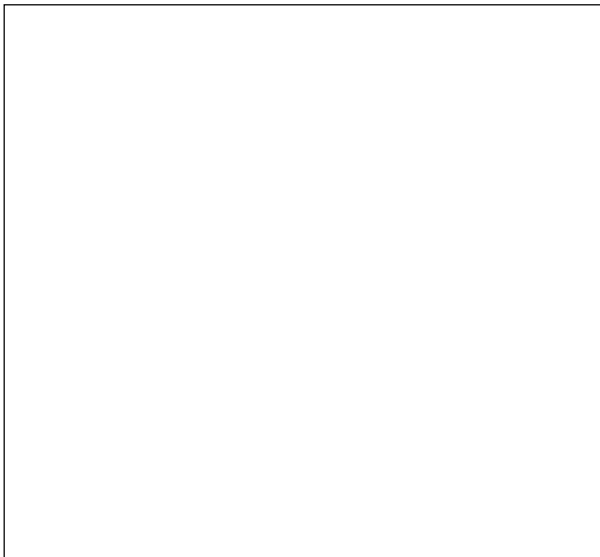
Upward Ratio: 0%

C0r0 Intensity: 882.7 cd/klm

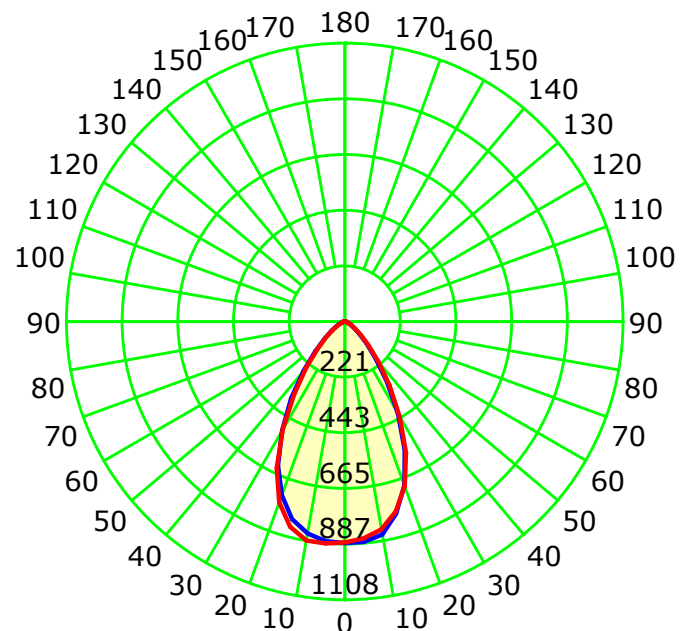
Pos of Max. Intensity: H270 V5

S/MH(C90/C270): 0.95

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd/klm

Average Diffuse Angle(50%): 61.7°

— 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

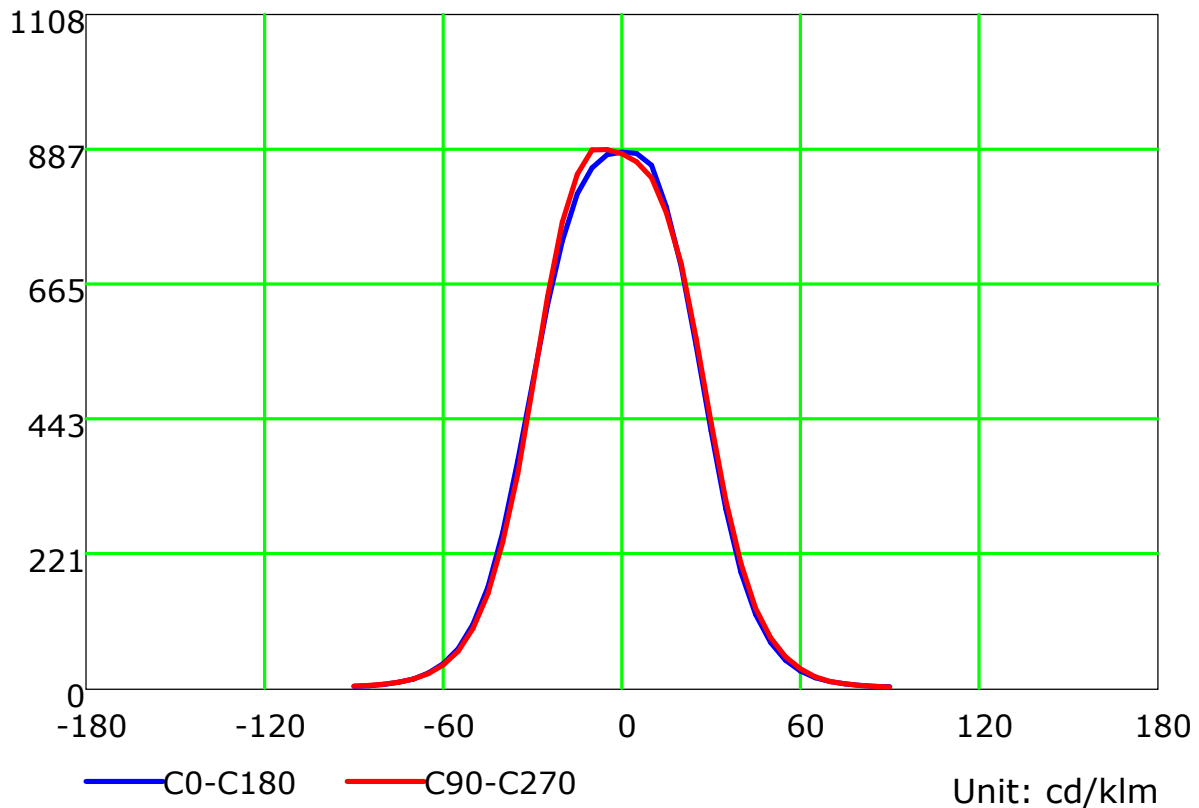
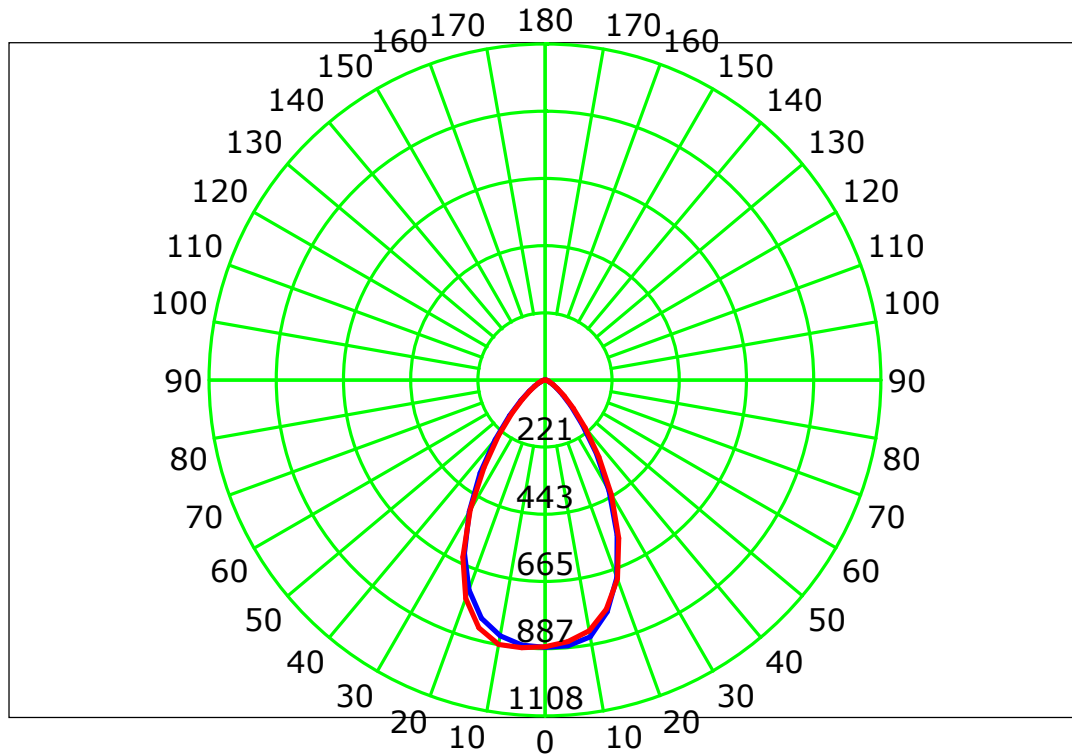
Test Device: GPM-1600L

Distance: 7.172 m [K=1.0000]

Humidity:

Inspector:

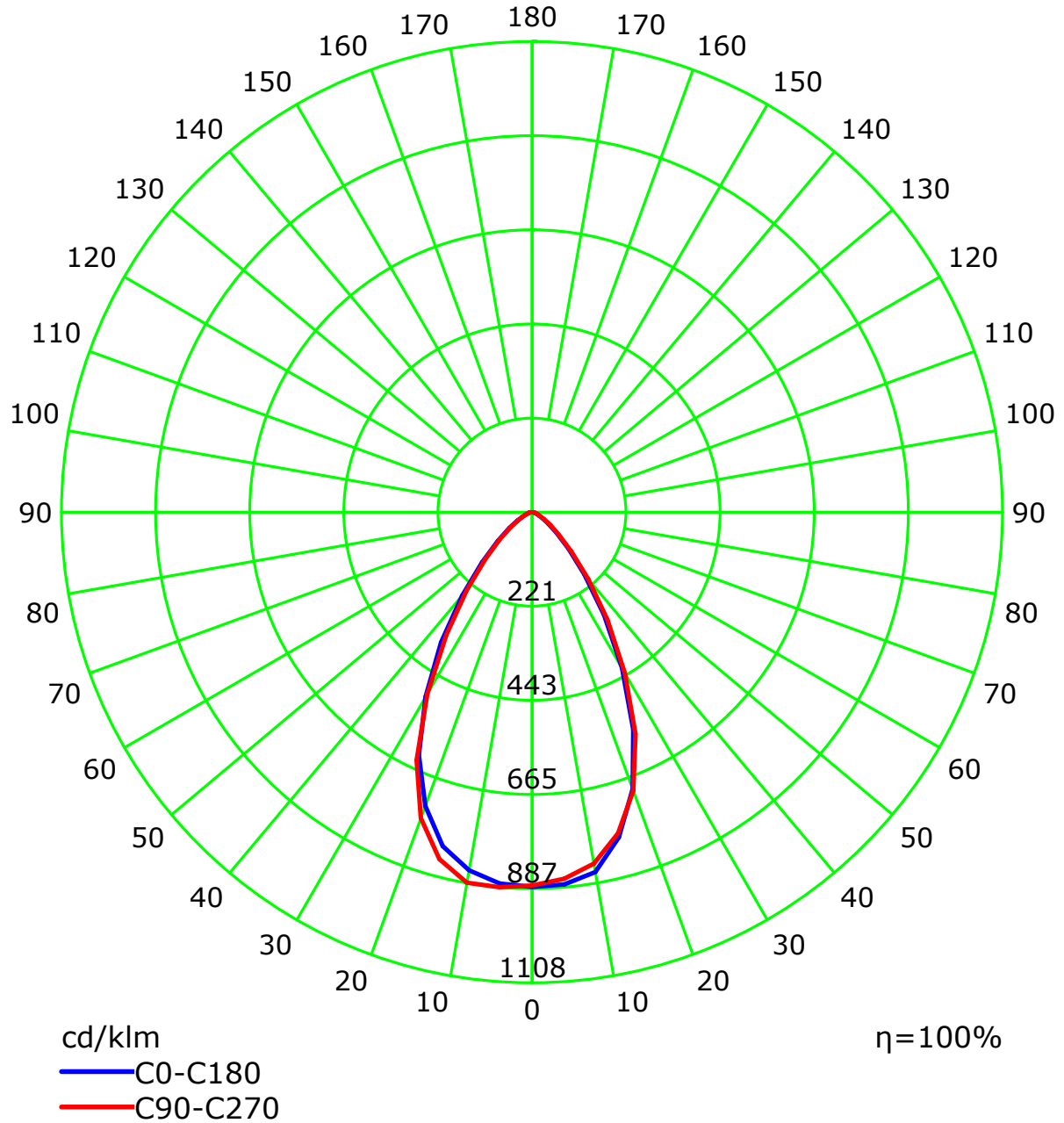
Luminous Intensity Distribution Curve



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)



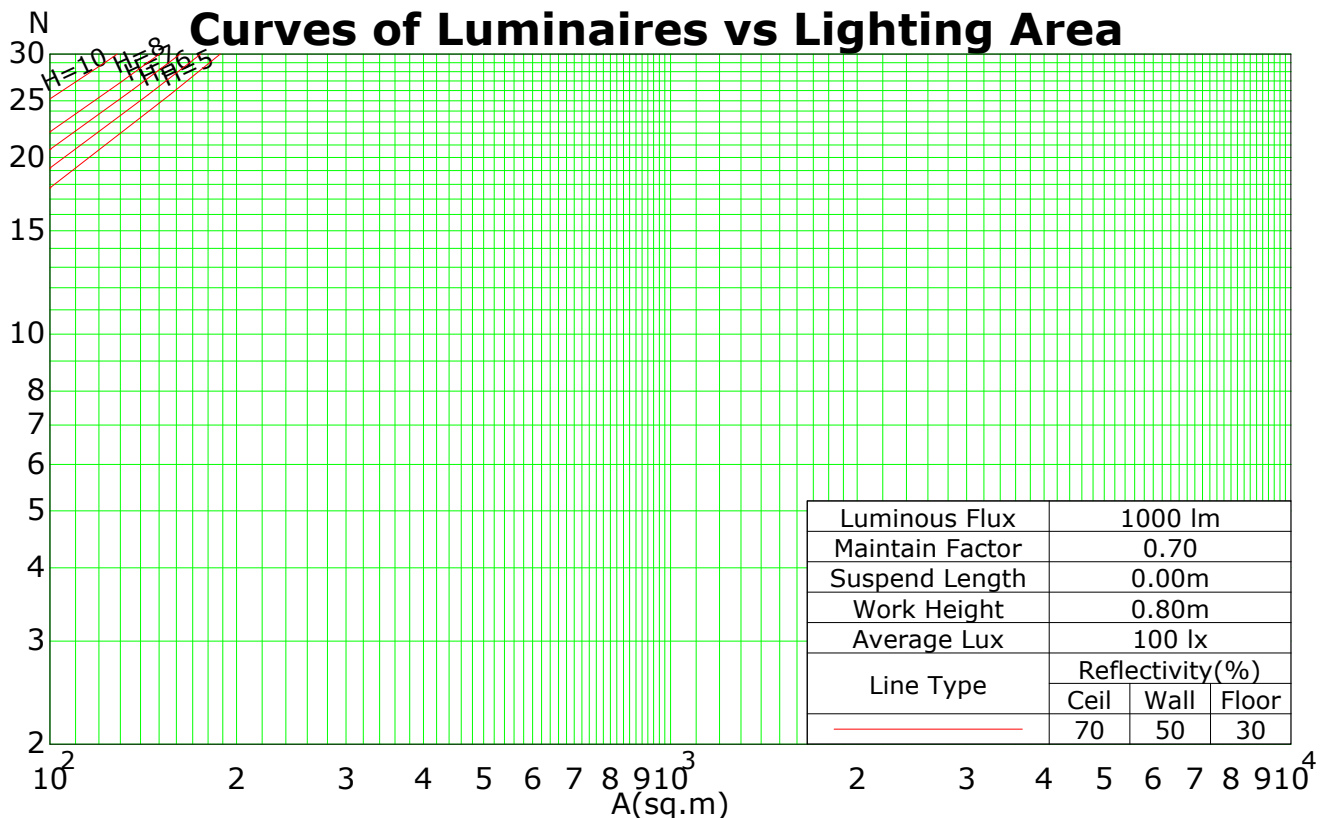
C Plane (°):0.0-360.0: 90.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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	1.12	1.09	1.06	1.04	1.10	1.07	1.04	1.02	1.03	1.01	0.99	0.99	0.98	0.96	0.96	0.94	0.93	0.91
2	1.06	1.00	0.96	0.92	1.04	0.98	0.94	0.91	0.95	0.92	0.89	0.92	0.89	0.87	0.89	0.87	0.85	0.83
3	1.00	0.92	0.86	0.82	0.97	0.91	0.85	0.81	0.88	0.84	0.80	0.85	0.82	0.79	0.83	0.80	0.77	0.76
4	0.94	0.85	0.79	0.74	0.92	0.84	0.78	0.73	0.82	0.77	0.72	0.80	0.75	0.72	0.78	0.74	0.71	0.69
5	0.88	0.79	0.72	0.67	0.86	0.78	0.72	0.67	0.76	0.70	0.66	0.74	0.69	0.66	0.72	0.68	0.65	0.63
6	0.83	0.73	0.66	0.62	0.82	0.72	0.66	0.61	0.71	0.65	0.61	0.69	0.64	0.60	0.68	0.63	0.60	0.58
7	0.79	0.68	0.61	0.57	0.77	0.67	0.61	0.56	0.66	0.60	0.56	0.65	0.60	0.56	0.64	0.59	0.56	0.54
8	0.74	0.64	0.57	0.52	0.73	0.63	0.57	0.52	0.62	0.56	0.52	0.61	0.56	0.52	0.60	0.55	0.52	0.50
9	0.70	0.60	0.53	0.49	0.69	0.59	0.53	0.49	0.58	0.52	0.48	0.57	0.52	0.48	0.56	0.52	0.48	0.47
10	0.67	0.56	0.50	0.45	0.66	0.56	0.49	0.45	0.55	0.49	0.45	0.54	0.49	0.45	0.53	0.48	0.45	0.44

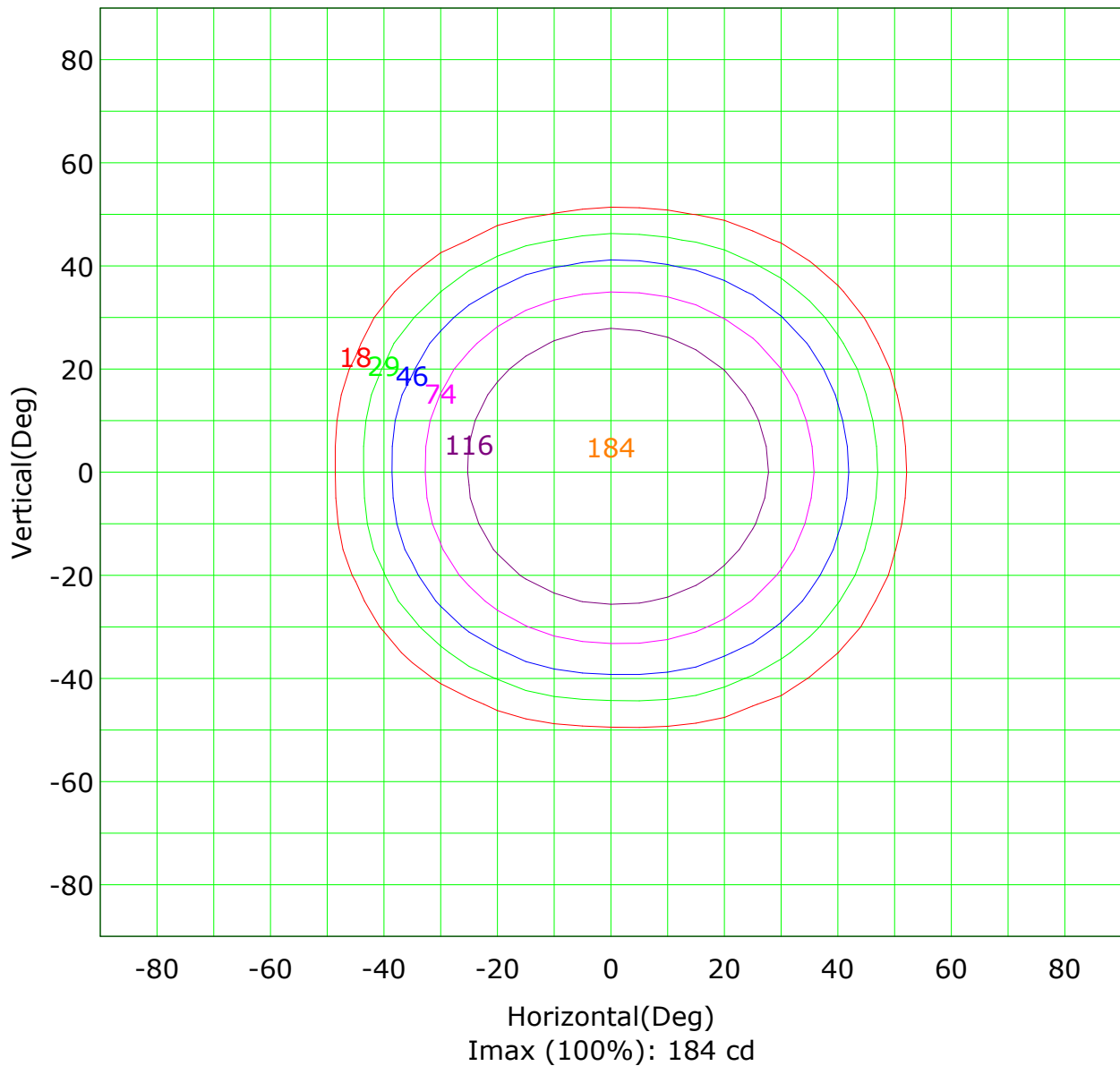
Spacing Criteria (0-180): 0.94
Spacing Criteria (90-270): 0.95
Spacing Criteria (Diagonal): 0.93



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)



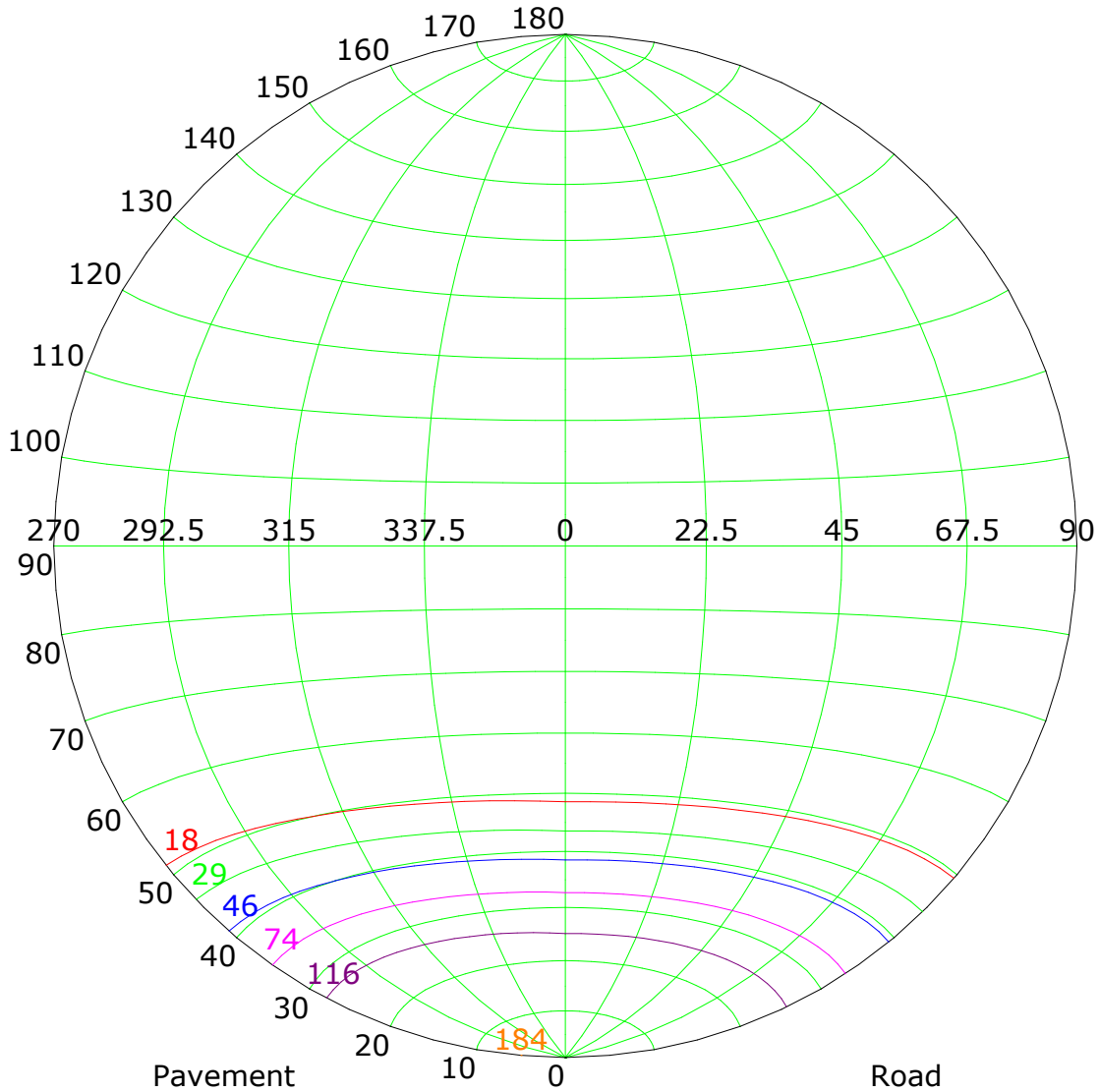
(10%): 18 cd
 (25%): 46 cd
 (63%): 116 cd

(16%): 29 cd
 (40%): 74 cd
 (100%): 184 cd

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%): 184 cd

(10%): 18 cd
(25%): 46 cd
(63%): 116 cd

(16%): 29 cd
(40%): 74 cd
(100%): 184 cd

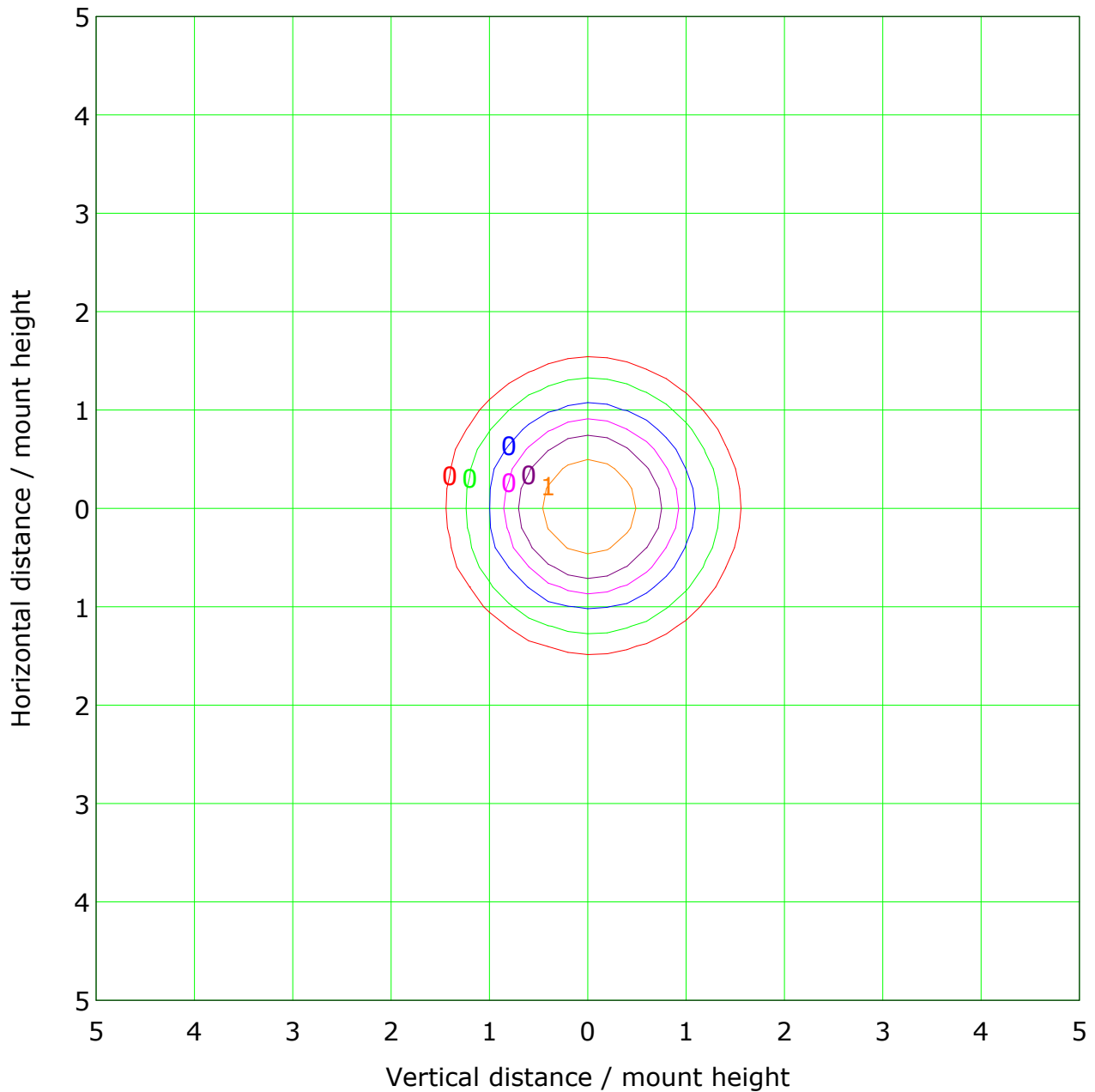
CIE: narrow - short
CIE: Non-cut-off luminaire
Max.At90: 55.185 cd/klm

IES: Non-cut-off
Max.At80: 3339.371 cd/klm
Max.80-90: 3339.371 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:

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 1.8 lx

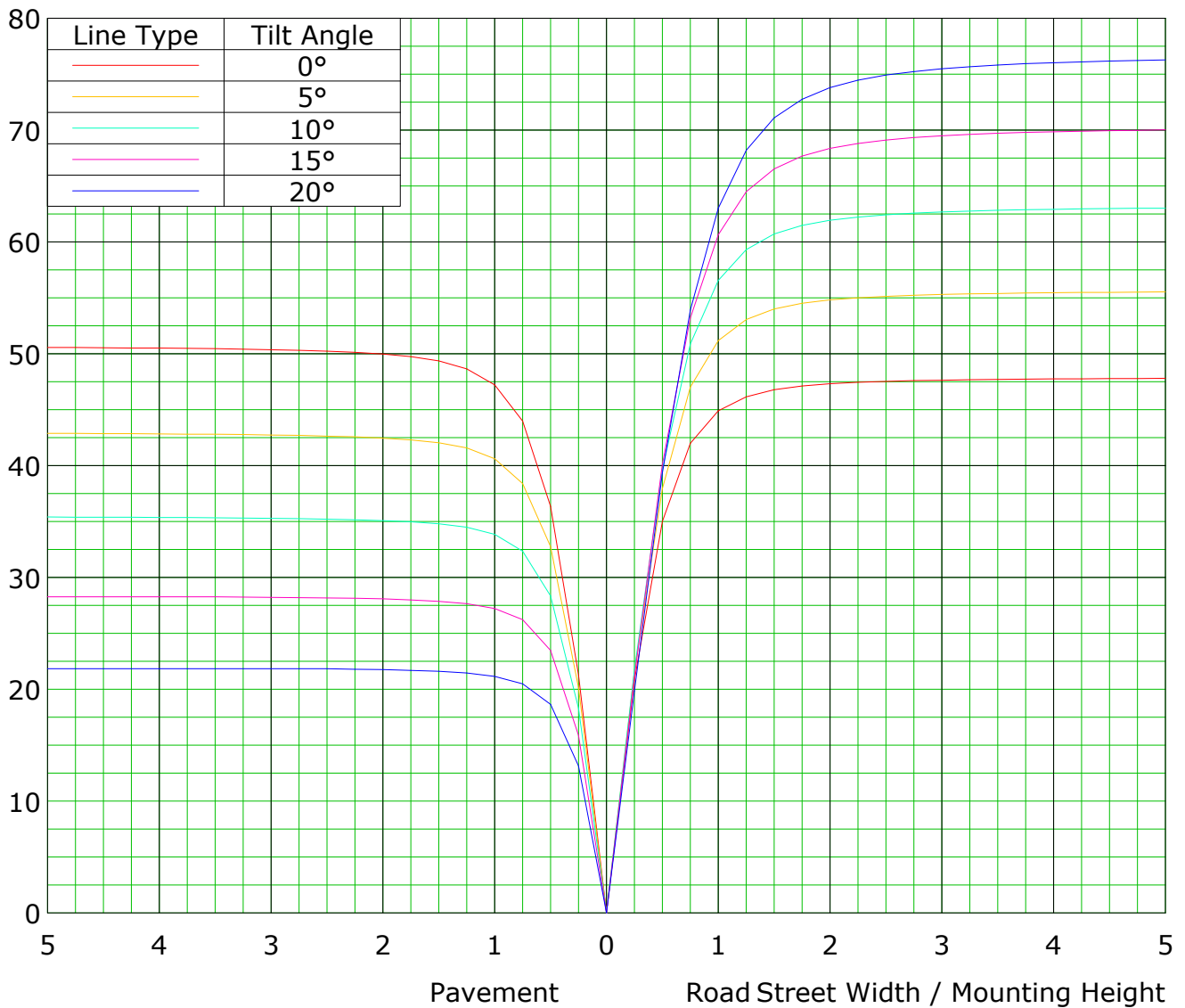
— (1%): 0.0 lx	— (2%): 0.0 lx
— (5%): 0.1 lx	— (10%): 0.2 lx
— (20%): 0.4 lx	— (50%): 0.9 lx
— (100%): 1.8 lx	

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(%)

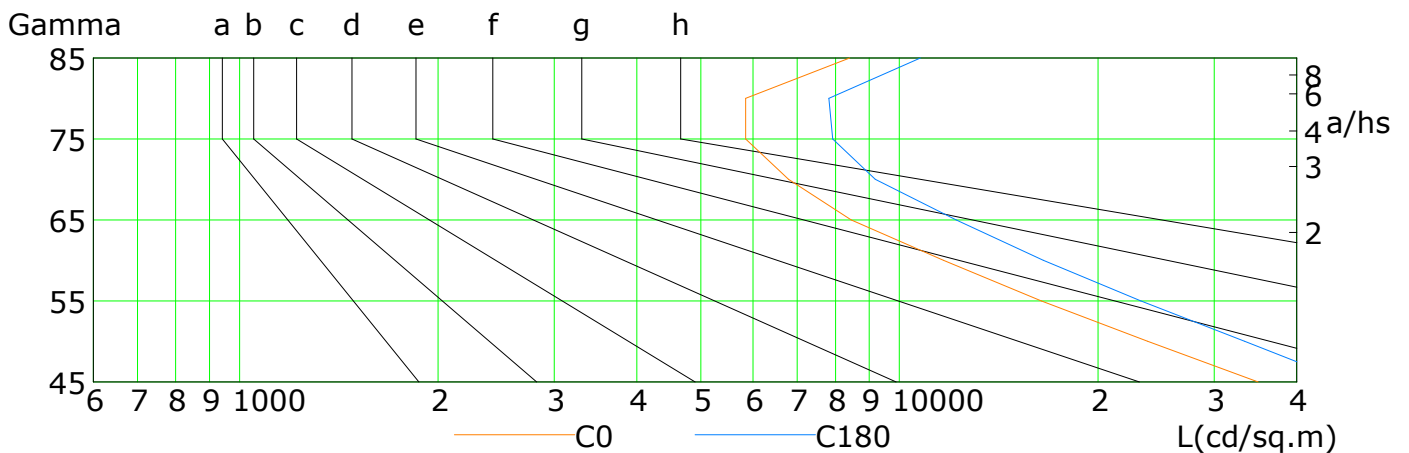
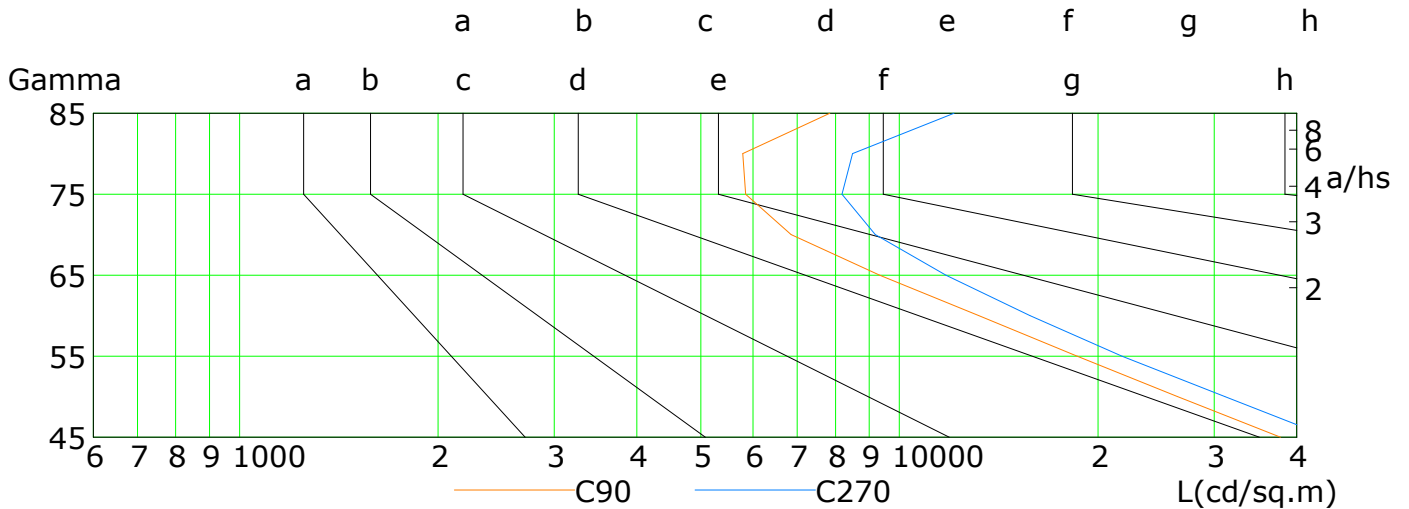


C Plane (°):0.0-360.0: 90.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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	34955	23776	16413	11660	8457	6796	5848	5849	8404
C90	37814	26390	18592	13184	9335	6853	5848	5793	7843
C180	47895	33378	23240	16523	12201	9194	7924	7817	10757
C270	44774	31130	21759	15762	11762	9194	8188	8492	12101

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:5.0

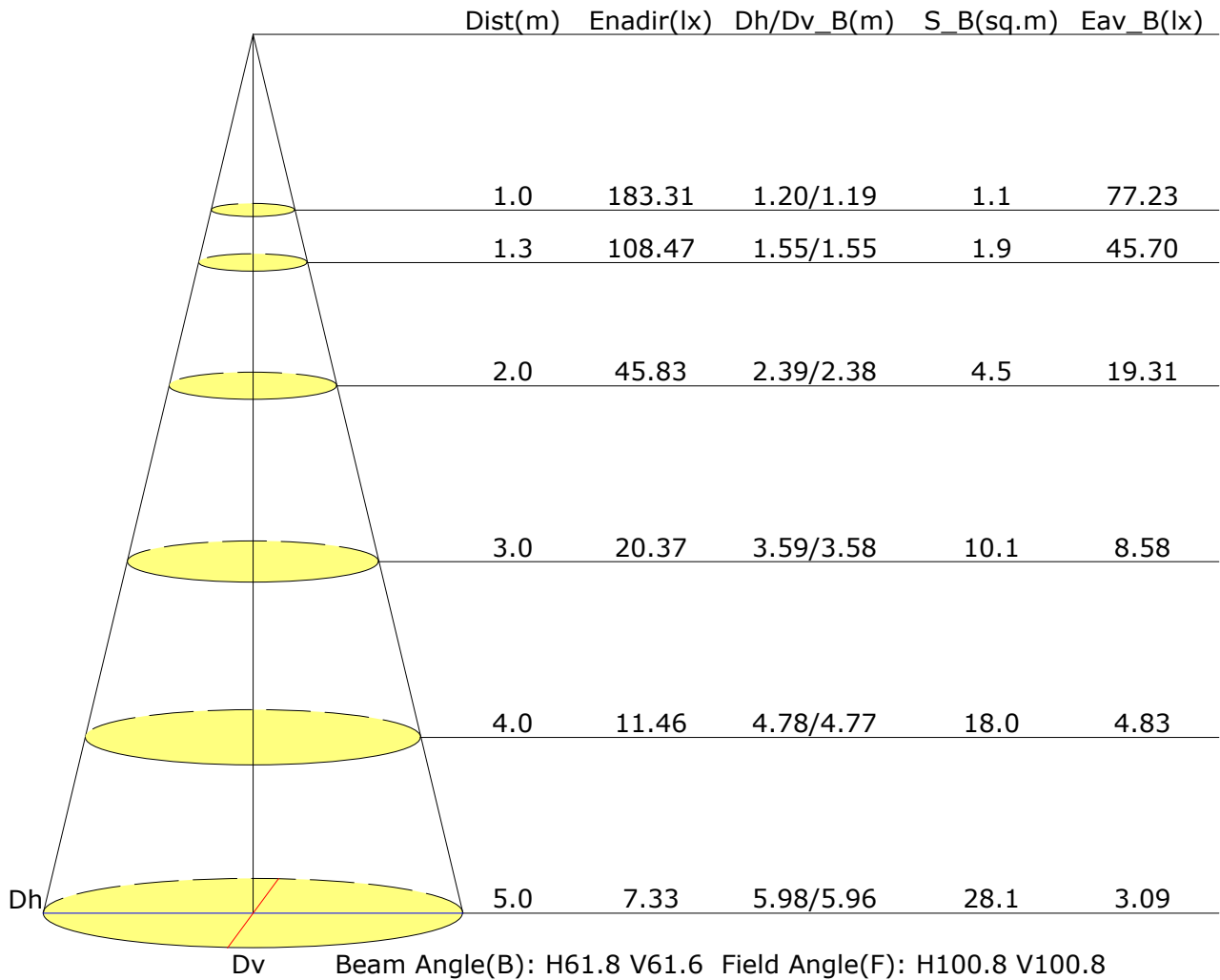
Test Device: GPM-1600L

Distance: 7.172 m [K=1.0000]

Humidity:

Inspector:

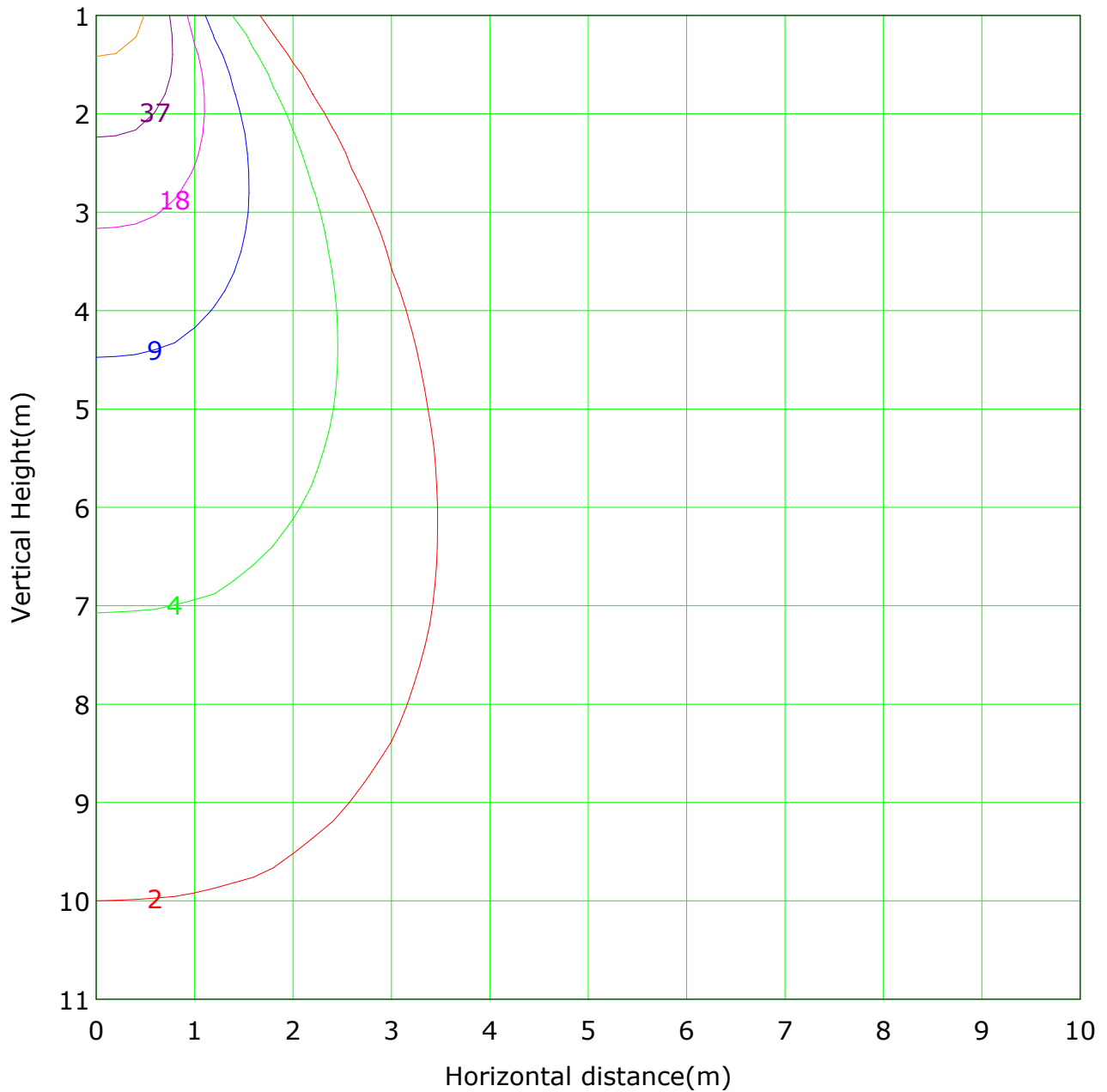
Illuminance at a Distance



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: 183.3 lx
 (1%): 1.8 lx (2%): 3.7 lx
 (5%): 9.2 lx (10%): 18.3 lx
 (20%): 36.7 lx (50%): 91.7 lx
 (100%): 183.3 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

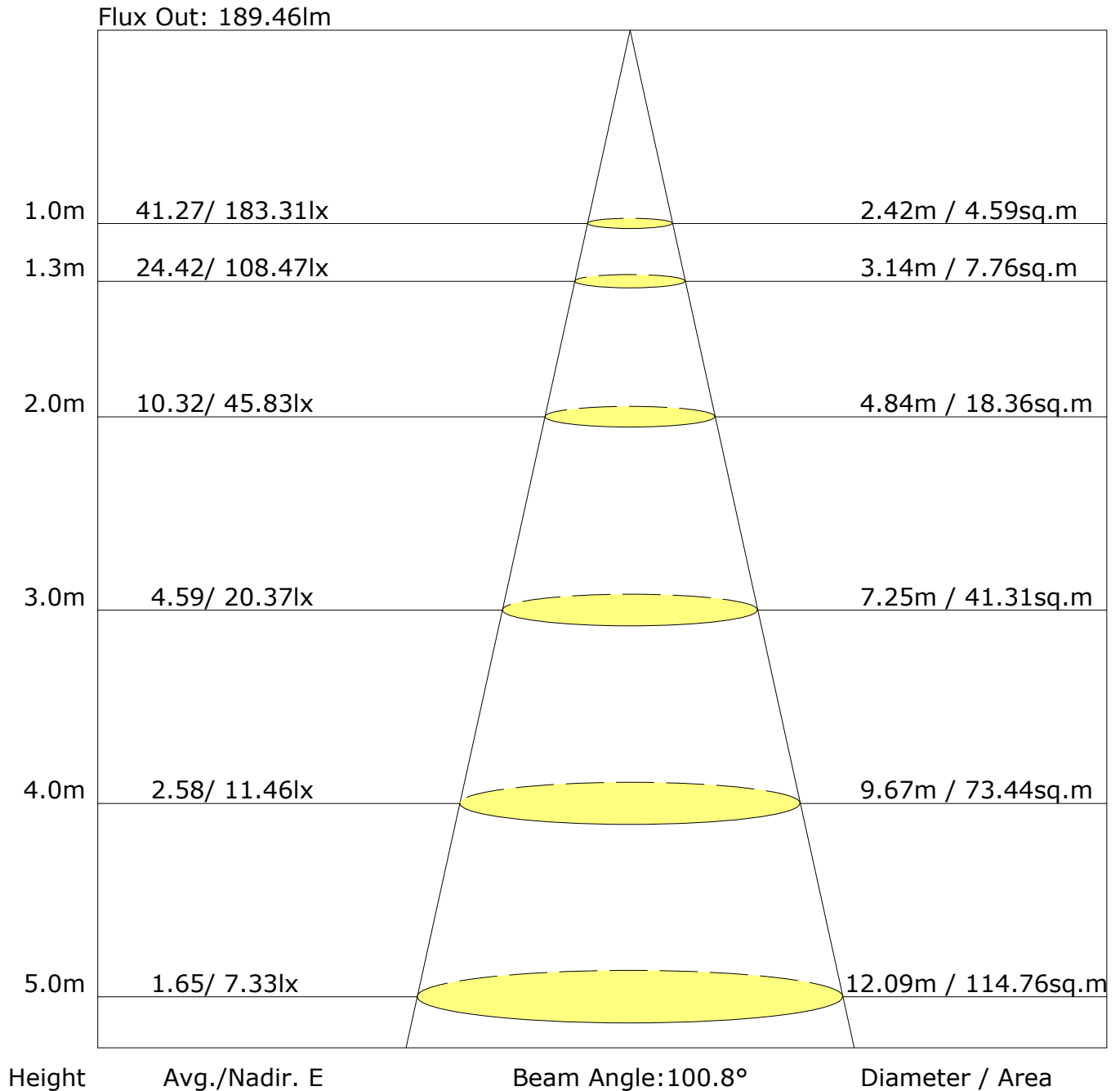
Unit: lm/klm

Vertical plane	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	Flux(T)	Flux(E)
-90	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	1.6	0.0	
-80	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.0	2.9	0.0	
-70	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.7	0.8	0.8	0.7	0.5	0.4	0.2	0.1	0.1	0.0	0.0	5.9	0.0	
-60	0.0	0.1	0.1	0.3	0.5	0.9	1.3	1.7	1.9	1.9	1.6	1.2	0.7	0.4	0.2	0.1	0.0	0.0	12.9	0.6	
-50	0.0	0.1	0.2	0.4	0.9	1.7	2.9	4.1	4.8	4.7	3.8	2.6	1.5	0.7	0.3	0.1	0.0	0.0	28.9	21.3	
-40	0.0	0.1	0.2	0.6	1.5	3.2	5.9	8.8	10.7	10.4	8.2	5.2	2.7	1.2	0.5	0.2	0.1	0.0	59.5	54.9	
-30	0.0	0.1	0.3	0.9	2.3	5.4	10.3	15.4	18.8	18.5	14.7	9.2	4.5	1.8	0.6	0.2	0.1	0.0	103.1	99.6	
-20	0.0	0.1	0.3	1.1	3.1	7.7	14.5	21.1	24.8	24.6	20.4	13.2	6.3	2.4	0.8	0.2	0.1	0.0	140.7	137.7	
-10	0.0	0.1	0.3	1.2	3.7	9.2	16.9	23.5	26.5	26.5	22.9	15.3	7.5	2.8	0.9	0.2	0.1	0.0	157.5	154.8	
0	0.0	0.1	0.3	1.2	3.7	9.1	16.7	23.1	26.0	26.0	22.5	15.1	7.4	2.7	0.9	0.2	0.1	0.0	155.1	152.3	
10	0.0	0.1	0.3	1.1	3.1	7.5	14.0	20.1	23.3	23.1	19.4	12.6	6.1	2.3	0.8	0.2	0.1	0.0	134.0	131.1	
20	0.0	0.1	0.3	0.8	2.2	5.2	9.7	14.3	17.1	16.8	13.6	8.6	4.2	1.7	0.6	0.2	0.1	0.0	95.5	91.9	
30	0.0	0.1	0.2	0.6	1.4	3.0	5.4	8.0	9.5	9.2	7.4	4.8	2.5	1.1	0.5	0.2	0.1	0.0	53.9	49.1	
40	0.0	0.1	0.2	0.4	0.8	1.6	2.6	3.6	4.2	4.1	3.3	2.3	1.3	0.7	0.3	0.1	0.0	0.0	25.6	16.6	
50	0.0	0.0	0.1	0.2	0.5	0.8	1.2	1.5	1.7	1.6	1.4	1.0	0.7	0.4	0.2	0.1	0.0	0.0	11.4	0.0	
60	0.0	0.0	0.1	0.2	0.2	0.4	0.5	0.6	0.6	0.6	0.5	0.4	0.3	0.2	0.1	0.1	0.0	0.0	4.9	0.0	
70	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	2.3	0.0	
80	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	1.2	0.0	
90	0.2	1.0	3.3	9.4	24.8	56.7	103.2	147.3	171.3	169.8	141.0	92.6	46.7	19.2	7.1	2.5	0.8	0.2	997		
Flux(E)	0.0	0.0	0.0	0.8	17.6	50.5	97.3	141.5	165.6	164.0	135.2	86.6	40.2	10.6	0.0	0.0	0.0	0.0		910	
	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	Flux(T)	Flux(E)
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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 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

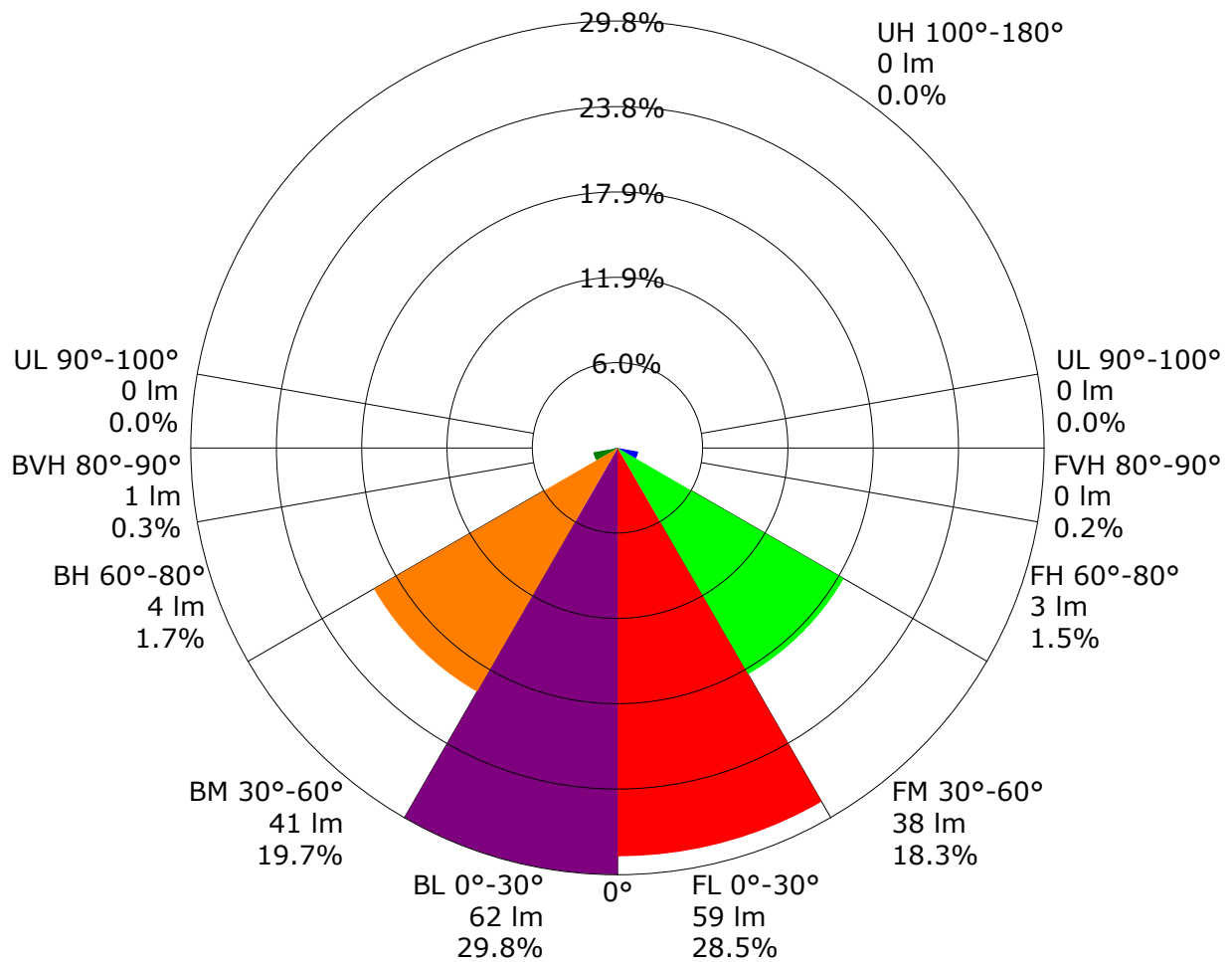
Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	20.8	21.8	21.0	22.0	22.2	21.4	22.4	21.7	22.6	22.8
3H	20.9	21.8	21.2	22.0	22.3	21.5	22.4	21.8	22.7	22.9
4H	20.9	21.7	21.2	22.0	22.3	21.6	22.4	21.9	22.7	22.9
6H	20.9	21.7	21.2	22.0	22.3	21.6	22.4	21.9	22.7	23.0
8H	20.9	21.7	21.3	22.0	22.3	21.6	22.4	22.0	22.7	23.0
12H	20.9	21.7	21.3	22.0	22.3	21.7	22.4	22.0	22.7	23.0
X=4H Y=2H	20.8	21.6	21.1	21.9	22.2	21.4	22.2	21.7	22.5	22.7
3H	21.0	21.7	21.3	22.0	22.3	21.6	22.3	21.9	22.6	22.9
4H	21.0	21.7	21.4	22.0	22.4	21.7	22.3	22.0	22.6	23.0
6H	21.1	21.7	21.5	22.0	22.4	21.8	22.3	22.2	22.7	23.1
8H	21.2	21.7	21.6	22.1	22.5	21.8	22.3	22.2	22.7	23.1
12H	21.2	21.7	21.7	22.1	22.5	21.9	22.4	22.3	22.8	23.2
X=8H Y=4H	21.0	21.5	21.4	21.9	22.3	21.6	22.1	22.1	22.5	22.9
6H	21.2	21.6	21.6	22.0	22.5	21.8	22.2	22.2	22.6	23.1
8H	21.3	21.6	21.7	22.1	22.6	21.9	22.3	22.4	22.7	23.2
12H	21.4	21.7	21.9	22.2	22.7	22.1	22.4	22.6	22.8	23.3
X=12H Y=4H	21.0	21.5	21.4	21.9	22.3	21.6	22.1	22.0	22.5	22.9
6H	21.2	21.5	21.6	22.0	22.5	21.8	22.1	22.3	22.6	23.1
8H	21.3	21.6	21.8	22.1	22.6	21.9	22.2	22.4	22.7	23.2
Variations with the observer position at spacings:										
S=1.0H	+1.8/-2.3					+1.8/-2.1				
S=1.5H	+3.7/-3.6					+3.7/-3.5				
S=2.0H	+5.4/-4.6					+5.4/-4.7				

Calculate in accordance with CIE Pub.117. The table is revised with 208lm ($8\log(F/F_0) = -5.5$).

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

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(Floor cavity)

Utilisation Factors UF(F)			SHR NOM = 0.75									
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	0.74	0.83	0.88	0.92	0.97	1.01	1.03	1.06	1.08	
	0.30		0.68	0.77	0.83	0.87	0.93	0.97	1.00	1.03	1.06	
	0.20		0.64	0.73	0.79	0.84	0.90	0.94	0.97	1.01	1.04	
0.50	0.50	0.20	0.73	0.81	0.86	0.90	0.95	0.98	1.00	1.02	1.04	
	0.30		0.68	0.76	0.82	0.86	0.91	0.95	0.97	1.00	1.02	
	0.20		0.64	0.72	0.78	0.82	0.88	0.92	0.95	0.98	1.00	
0.30	0.50	0.20	0.72	0.79	0.84	0.87	0.92	0.95	0.96	0.99	1.00	
	0.30		0.67	0.75	0.80	0.84	0.89	0.92	0.94	0.97	0.99	
	0.20		0.64	0.72	0.77	0.81	0.86	0.90	0.92	0.95	0.97	
0.00	0.00	0.00	0.62	0.70	0.75	0.79	0.83	0.86	0.88	0.91	0.93	
Rating:4W 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 = 0.75									
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	0.73	0.58	0.49	0.42	0.33	0.27	0.23	0.18	0.14	
	0.30		0.61	0.50	0.43	0.37	0.30	0.25	0.21	0.17	0.14	
	0.20		0.52	0.44	0.38	0.33	0.27	0.23	0.20	0.16	0.13	
0.50	0.50	0.20	0.70	0.56	0.46	0.40	0.31	0.29	0.21	0.16	0.13	
	0.30		0.59	0.48	0.41	0.36	0.28	0.23	0.20	0.16	0.13	
	0.20		0.51	0.43	0.37	0.32	0.26	0.22	0.19	0.15	0.12	
0.30	0.50	0.20	0.67	0.53	0.44	0.38	0.29	0.24	0.20	0.15	0.13	
	0.30		0.58	0.47	0.39	0.34	0.27	0.22	0.19	0.15	0.12	
	0.20		0.50	0.42	0.36	0.31	0.25	0.21	0.18	0.14	0.12	
0.00	0.00	0.00	0.38	0.30	0.25	0.21	0.17	0.14	0.11	0.09	0.07	
Rating:4W 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 = 0.75									
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	0.14	0.15	0.16	0.17	0.18	0.19	0.20	0.20	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	0.17	0.18	
0.50	0.50	0.20	0.14	0.15	0.16	0.17	0.18	0.18	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	0.14	0.15	0.16	0.17	
0.30	0.50	0.20	0.13	0.14	0.15	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:4W 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°): 178.98 lm

%lum = 86.2%
%lamp = 86.2%

cone flux(120°): 199.90 lm

%lum = 96.3%
%lamp = 96.3%

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	10329.02
L 0-180(75) av	6885.99
L 0-180(85) av	9580.11
L 90-270(65) av	10548.54
L 90-270(75) av	7018.06
L 90-270(85) av	9972.27
L 45(65) av	10438.78
L 45(75) av	6952.02
L 45(85) av	9776.19

Standard: GB/T 29293-2012