

Report No.:

Test Time: 2026-01-12 16:24

Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Lamp Catalog: 3000K

Number of Lamps:

Luminous Length (mm): 600

Luminous Height (mm): 27

Current: 0.0910 A

Power Factor: 0.9640

Luminaire Description:

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 130

Voltage: 232.00 V

Power: 20.26 W

Photometric Results

CIE Class: Direct

Measurement Flux: 2368.1 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(50%): H89.8

Vertical Diffuse Angle(50%): V83.9

Luminous Efficacy (lm/w): 116.89

Max. Intensity: 495.08 cd/klm

S/MH(C0/C180): 1.21

Total Rated Lamp Lumens: 2368.1 lm

Efficiency: 100%

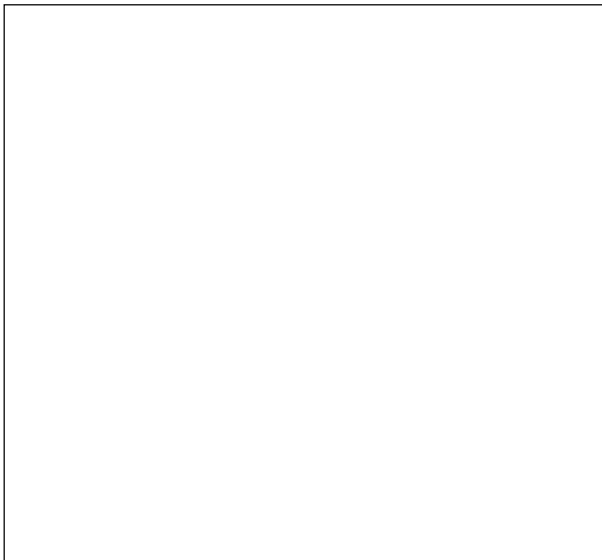
Upward Ratio: 0%

C0r0 Intensity: 494.98 cd/klm

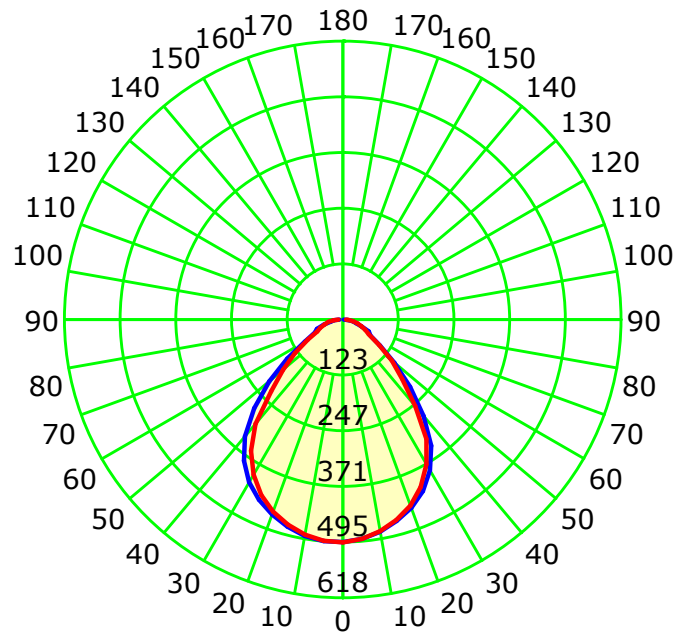
Pos of Max. Intensity: H90 V0

S/MH(C90/C270): 1.16

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd/klm

Average Diffuse Angle(50%): 86.8°

— 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

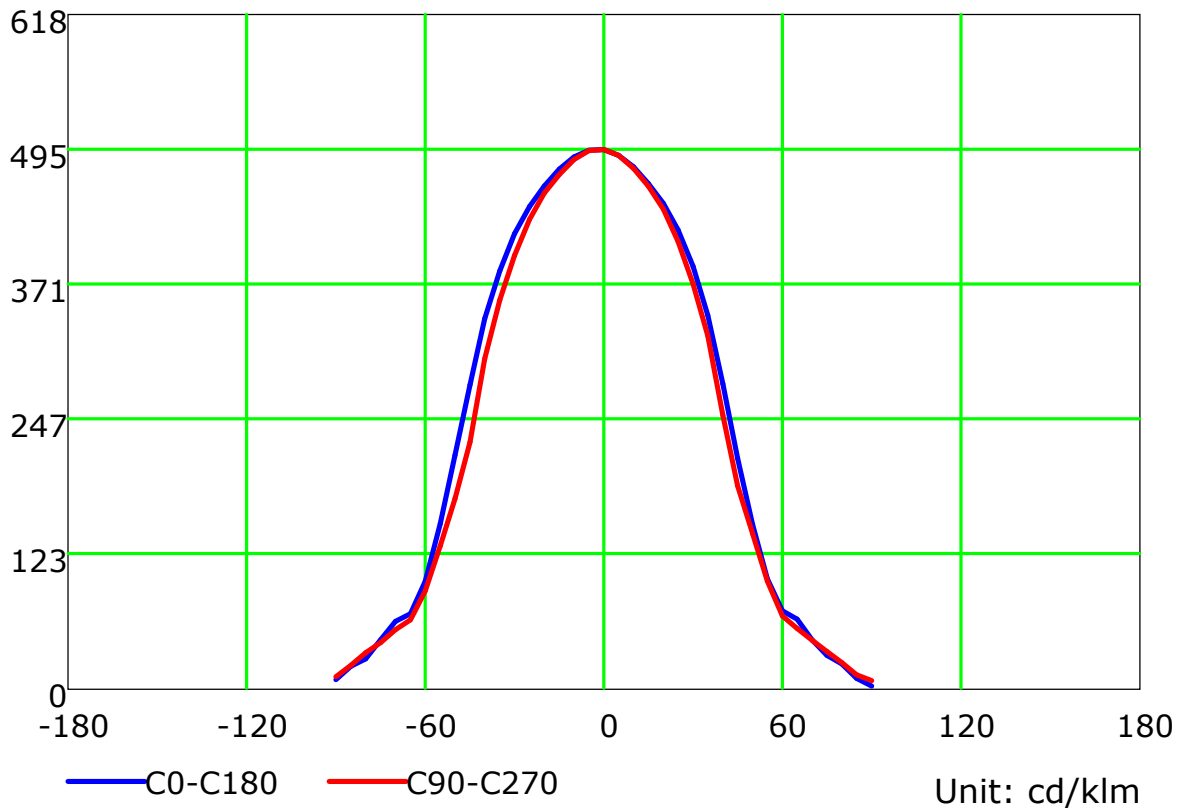
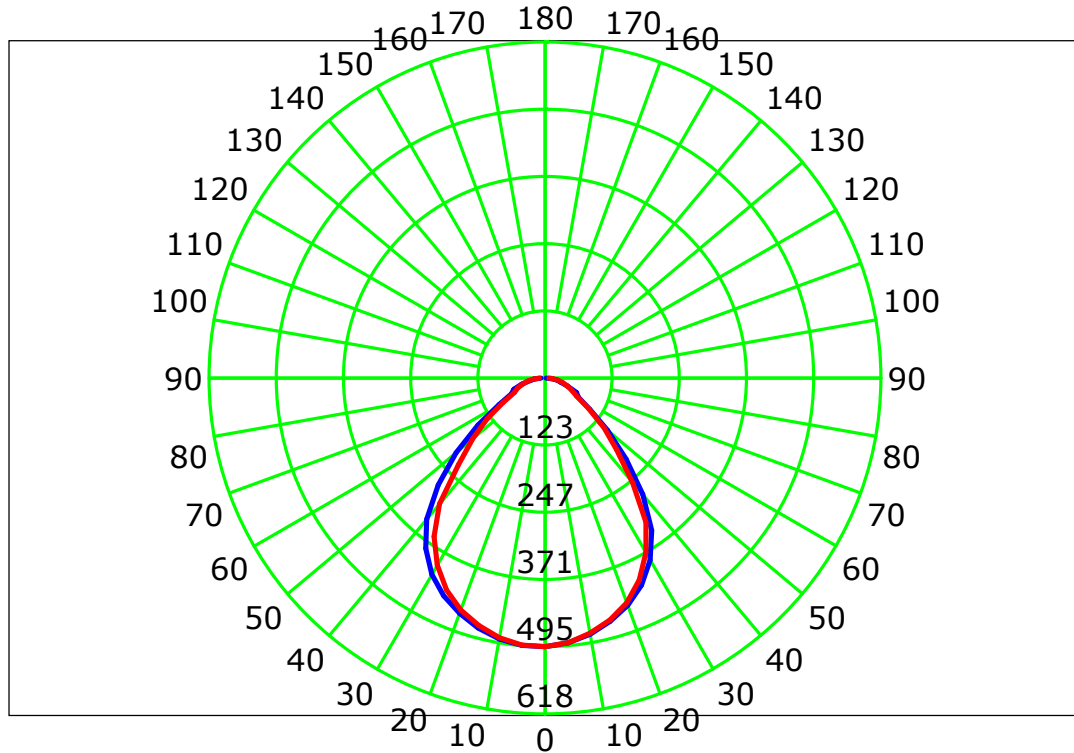
Distance: 7.172 m [K=1.0000]

Humidity:

Inspector:



Luminous Intensity Distribution Curve



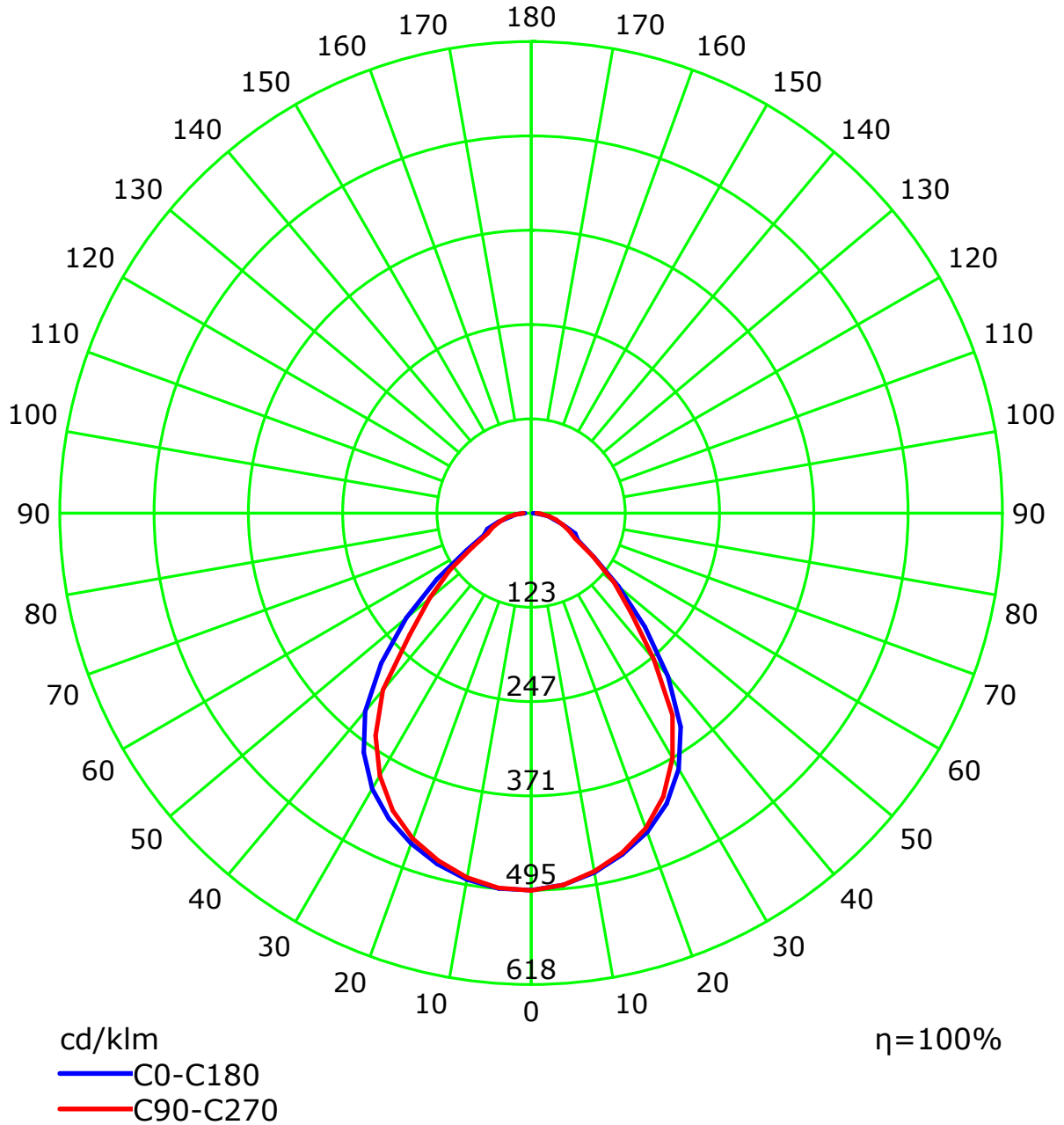
Unit: cd/klm

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:



Luminous Intensity Distribution Curve(cd/klm)



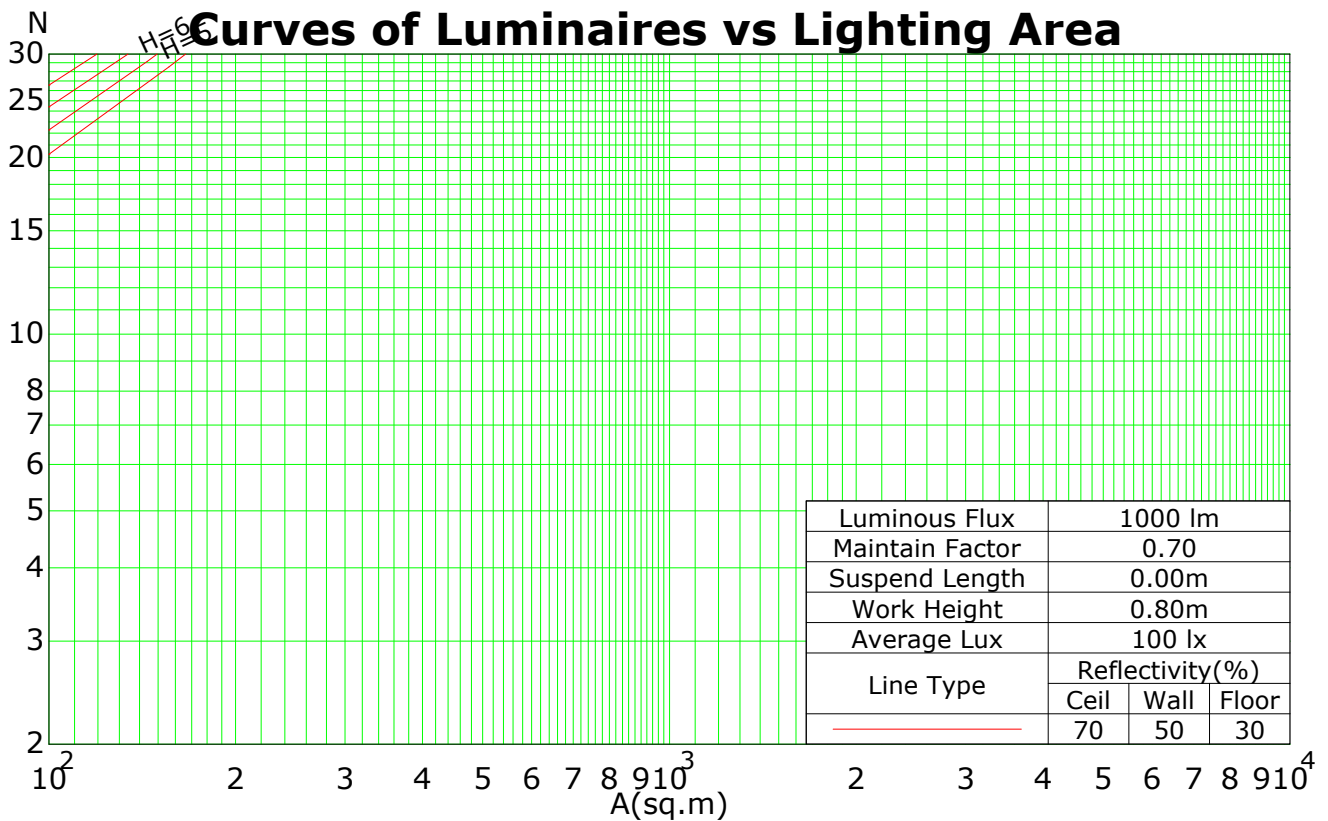
C Plane (°):0.0-360.0: 90.0
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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
RCCR	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	1.10	1.06	1.02	0.99	1.08	1.04	1.00	0.97	1.00	0.97	0.94	0.96	0.94	0.91	0.92	0.90	0.89	0.87
2	1.02	0.95	0.89	0.84	0.99	0.93	0.87	0.83	0.89	0.85	0.81	0.86	0.82	0.79	0.83	0.80	0.77	0.75
3	0.94	0.85	0.78	0.72	0.92	0.83	0.77	0.71	0.80	0.75	0.70	0.78	0.73	0.69	0.75	0.71	0.68	0.66
4	0.87	0.76	0.69	0.63	0.85	0.75	0.68	0.62	0.73	0.66	0.61	0.70	0.65	0.61	0.68	0.64	0.60	0.58
5	0.81	0.69	0.61	0.55	0.79	0.68	0.61	0.55	0.66	0.59	0.54	0.64	0.58	0.54	0.62	0.57	0.53	0.51
6	0.75	0.63	0.55	0.49	0.73	0.62	0.55	0.49	0.60	0.54	0.49	0.59	0.53	0.48	0.57	0.52	0.48	0.46
7	0.70	0.58	0.50	0.44	0.69	0.57	0.49	0.44	0.56	0.49	0.44	0.54	0.48	0.43	0.53	0.47	0.43	0.41
8	0.66	0.53	0.45	0.40	0.64	0.53	0.45	0.40	0.51	0.44	0.40	0.50	0.44	0.39	0.49	0.43	0.39	0.37
9	0.62	0.49	0.42	0.36	0.60	0.49	0.41	0.36	0.47	0.41	0.36	0.46	0.40	0.36	0.45	0.40	0.36	0.34
10	0.58	0.46	0.38	0.33	0.57	0.45	0.38	0.33	0.44	0.38	0.33	0.43	0.37	0.33	0.42	0.37	0.33	0.31

Spacing Criteria (0-180): 1.21
 Spacing Criteria (90-270): 1.16
 Spacing Criteria (Diagonal): 1.22

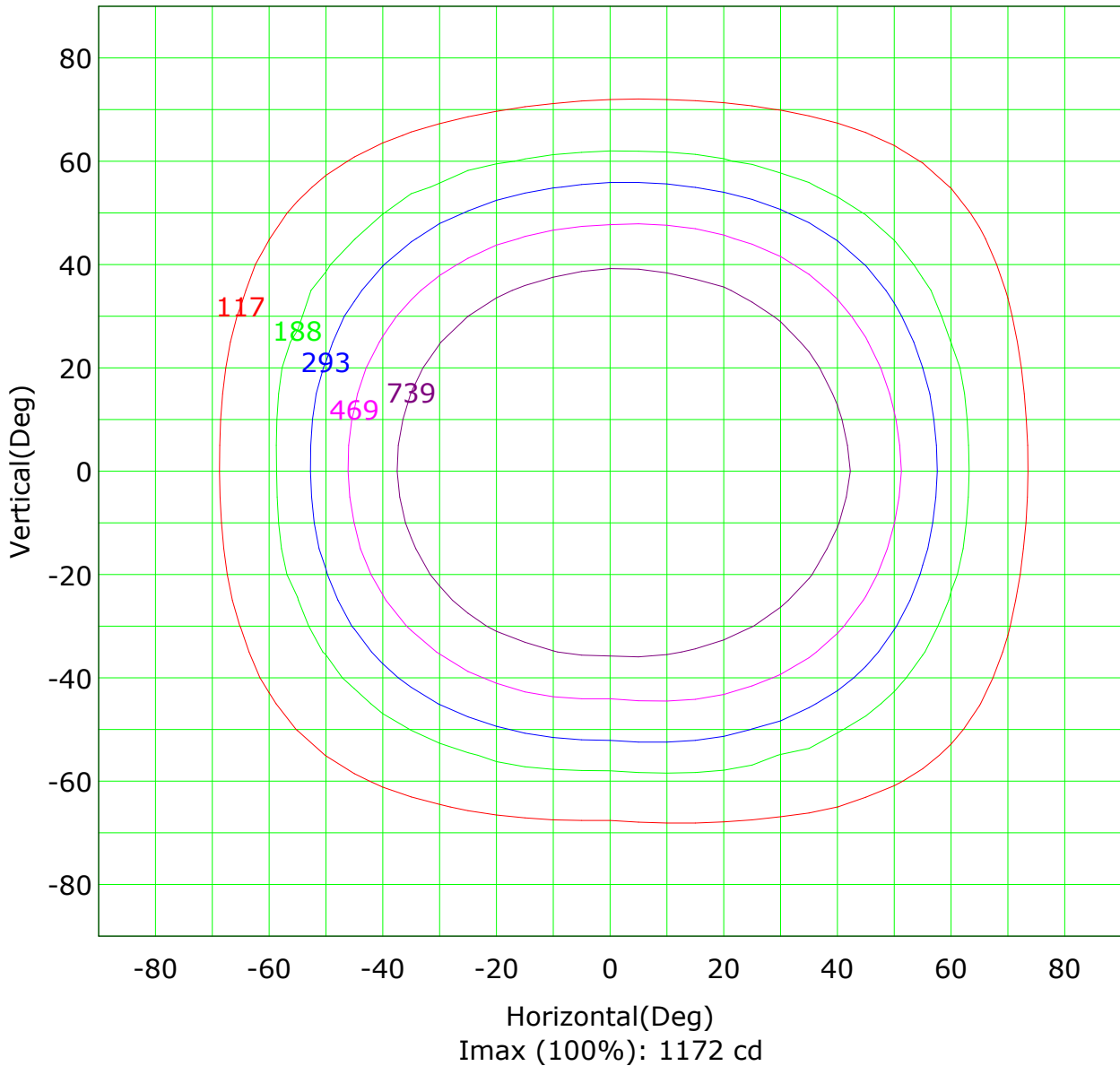


C Plane (°):0.0-360.0: 90.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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



Isocandela (rectangle)

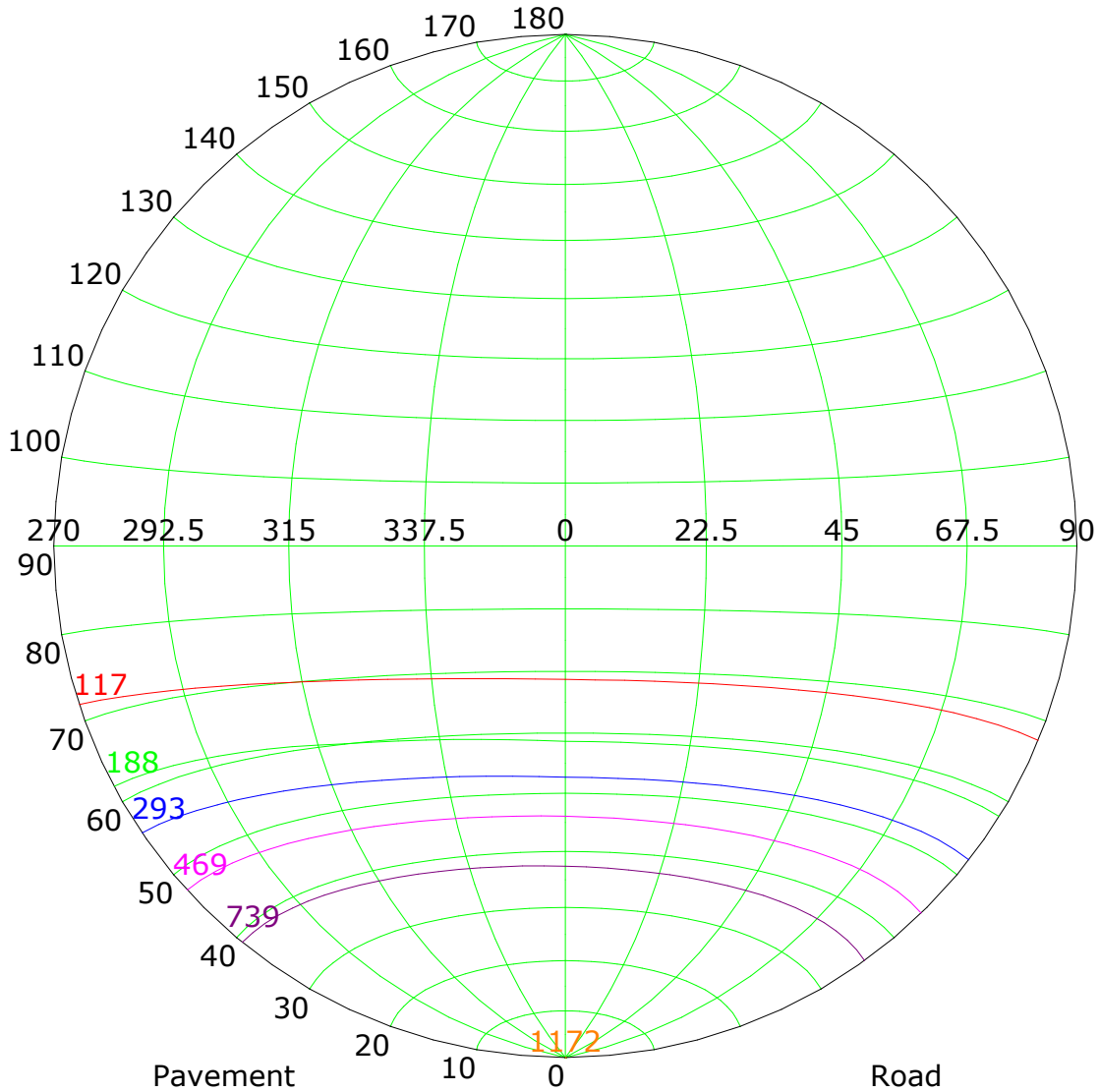


— (10%):	117 cd	— (16%):	188 cd
— (25%):	293 cd	— (40%):	469 cd
— (63%):	739 cd	— (100%):	1172 cd

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%): 1172 cd

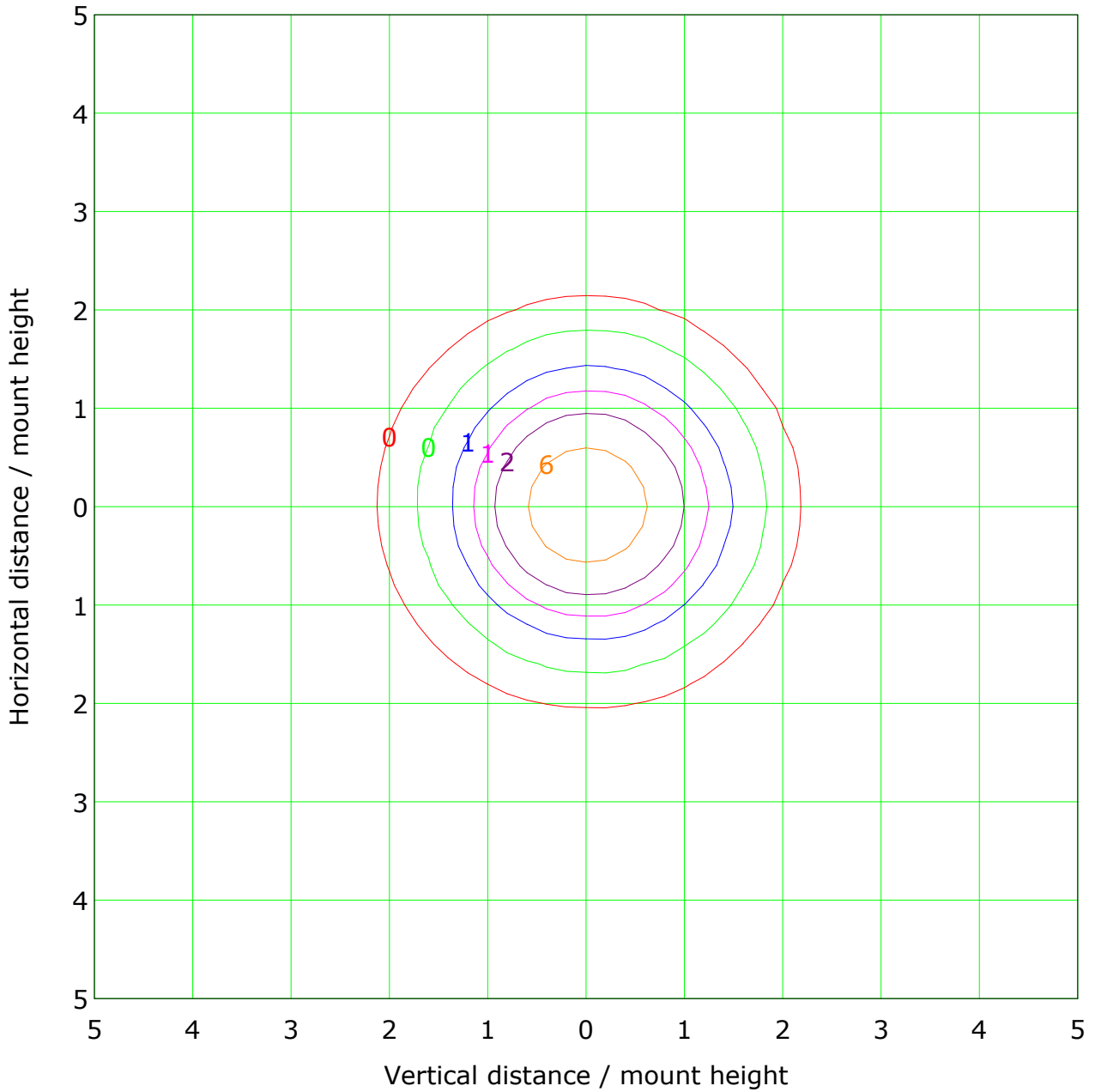
— (10%): 117 cd	— (16%): 188 cd
— (25%): 293 cd	— (40%): 469 cd
— (63%): 739 cd	— (100%): 1172 cd

CIE: narrow - short
 CIE: Non-cut-off luminaire
 Max.At90: 18.788 cd/klm

IES: Semi-cut-off
 Max.At80: 188.182 cd/klm
 Max.80-90: 25299011785554515000000000000000



IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 11.7 lx

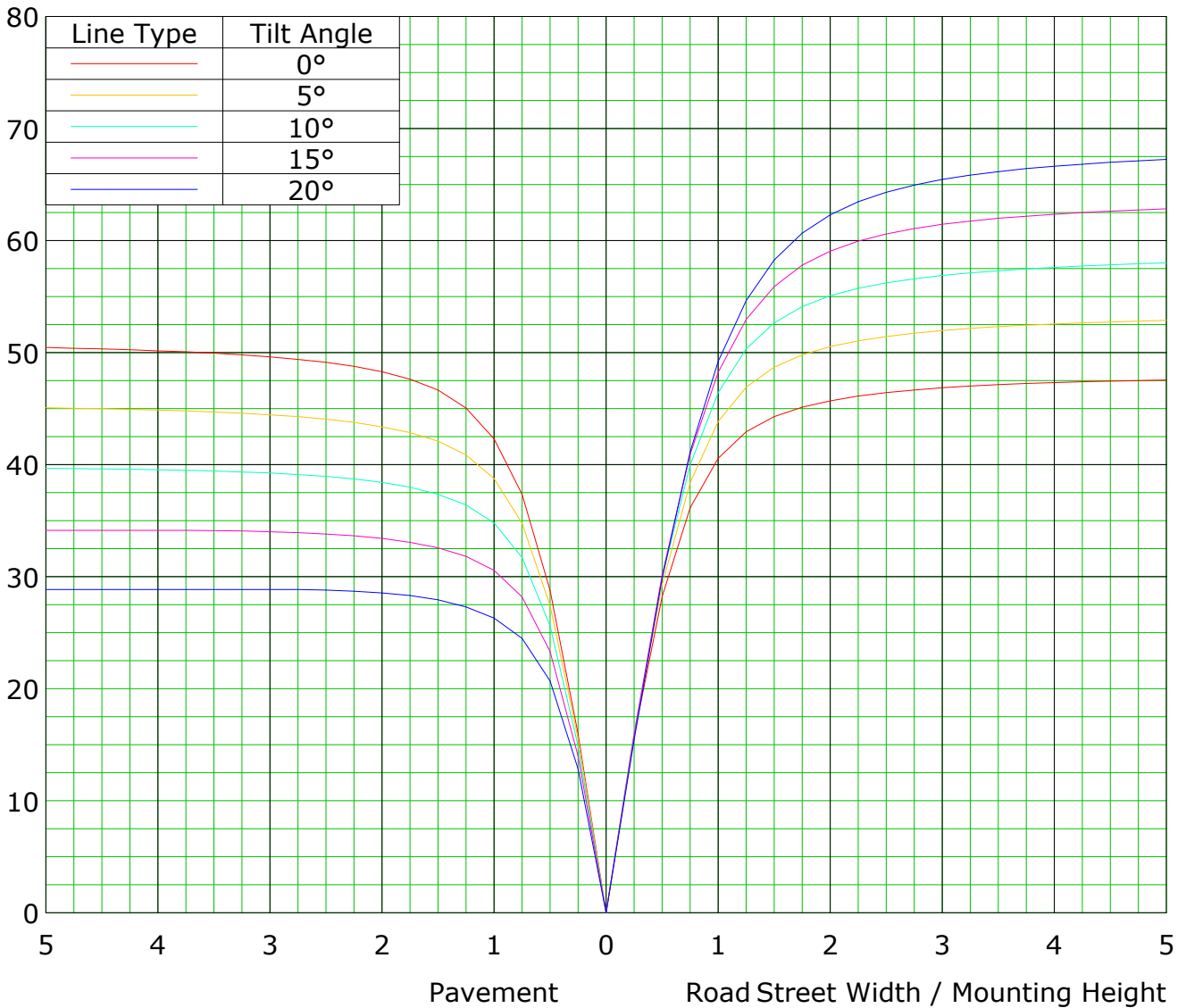
— (1%): 0.1 lx	— (2%): 0.2 lx
— (5%): 0.6 lx	— (10%): 1.2 lx
— (20%): 2.3 lx	— (50%): 5.9 lx
— (100%): 11.7 lx	

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(%)



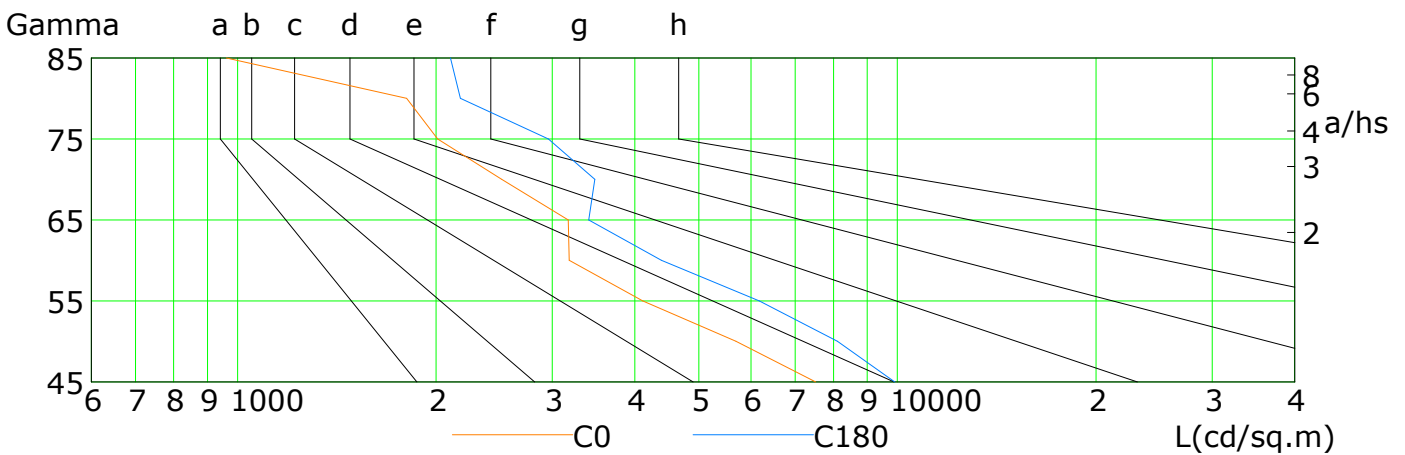
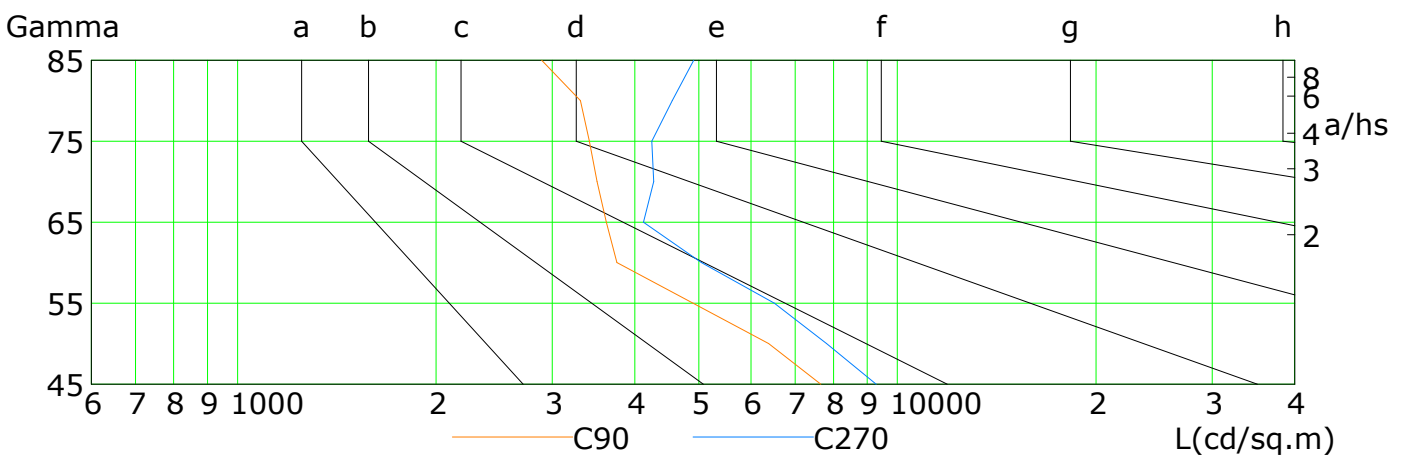
C Plane (°):0.0-360.0: 90.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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)								
		2000	1000	500	<=300					
1.15	A									
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

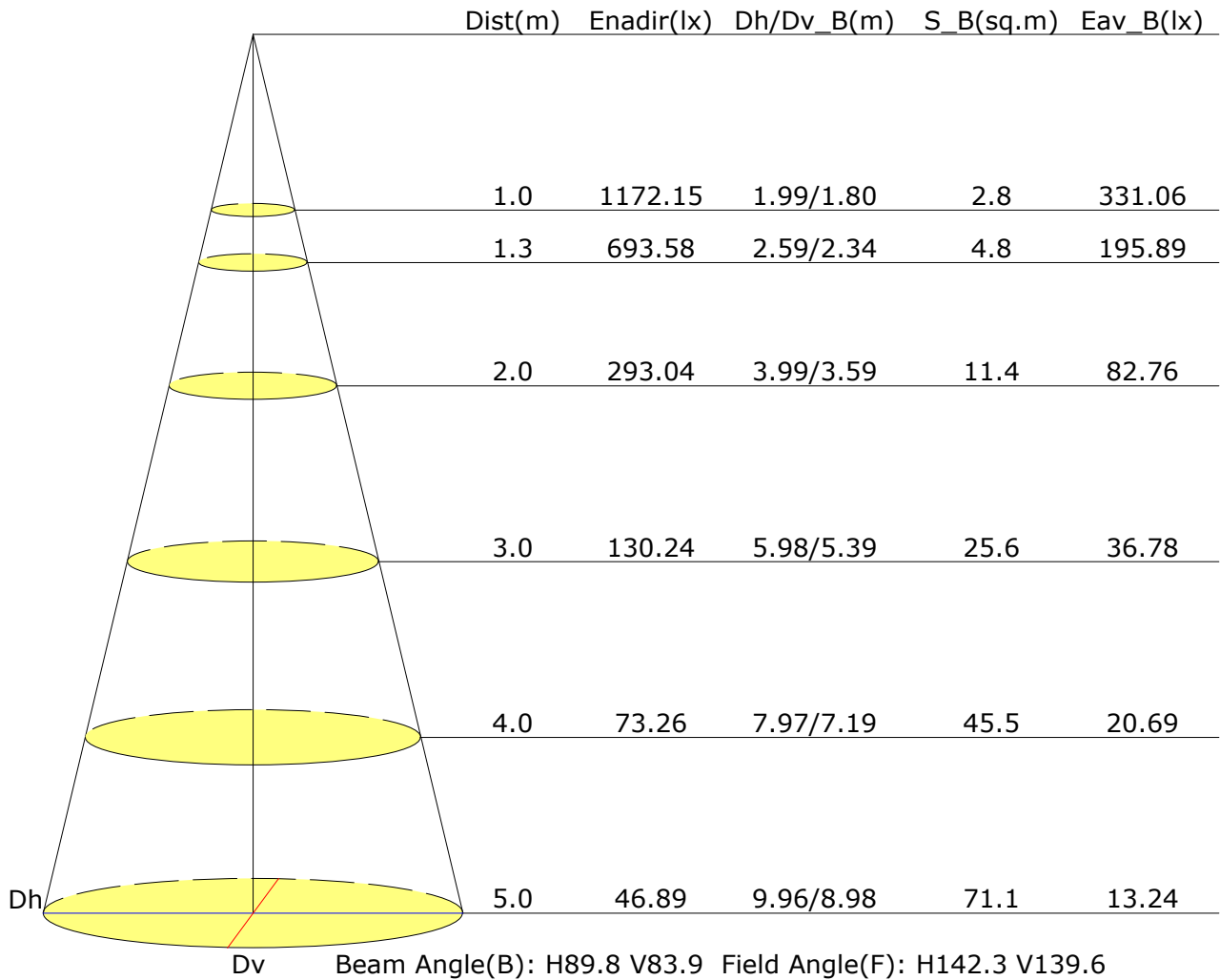


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	7521	5691	4113	3180	3170	2515	2010	1803	962
C90	7654	6378	4900	3759	3620	3504	3414	3309	2891
C180	9912	8109	6178	4386	3407	3477	2958	2175	2101
C270	9290	7805	6512	5046	4122	4273	4245	4560	4915

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

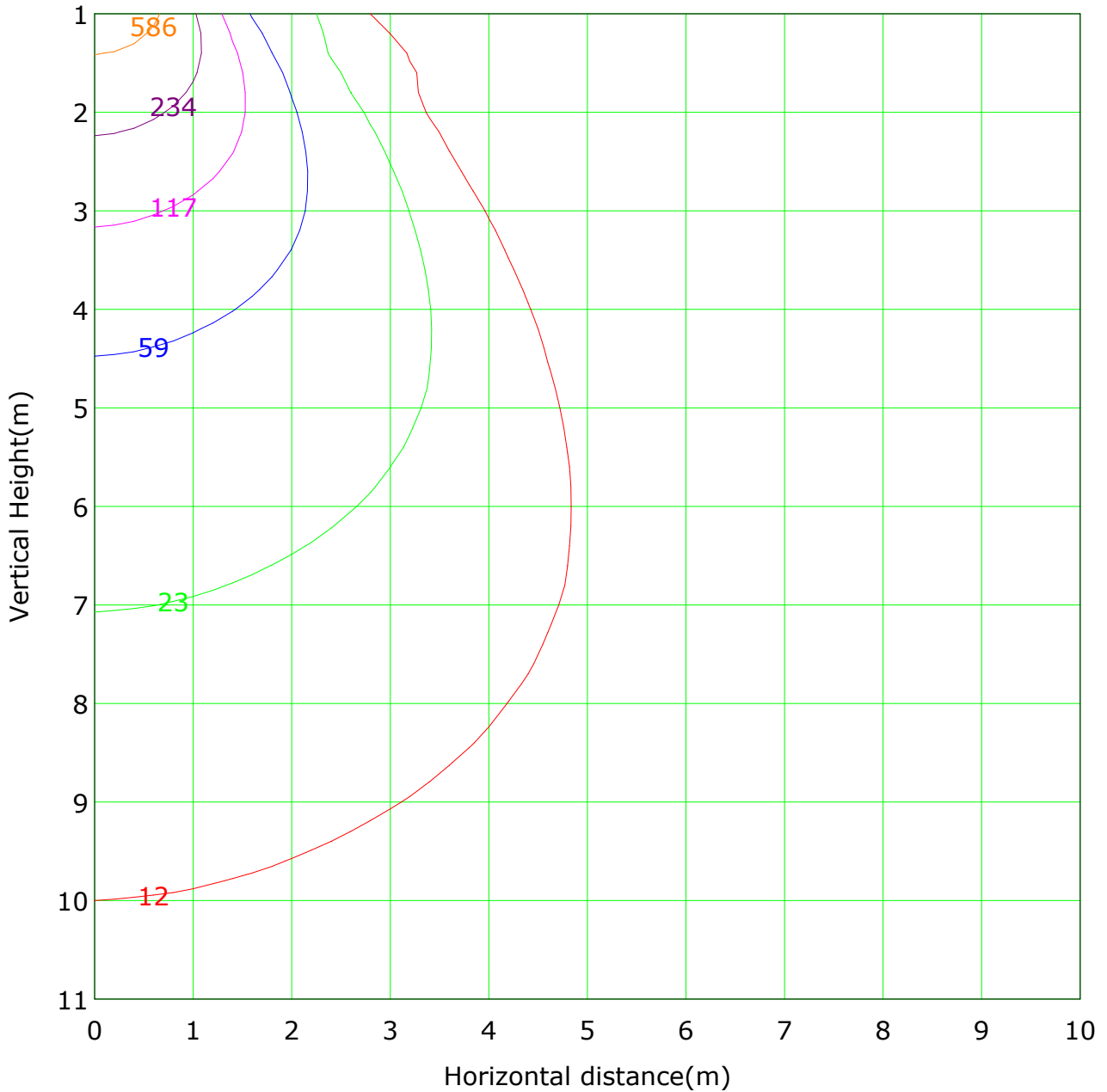


C Plane (°):0.0-360.0: 90.0
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

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: 1172.2 lx
 (1%): 11.7 lx (2%): 23.4 lx
 (5%): 58.6 lx (10%): 117.2 lx
 (20%): 234.4 lx (50%): 586.1 lx
 (100%):1172.1 lx

Area Flux Table

Unit: lm/klm

-90	0.0	0.1	0.2	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0	5.9	0.0
-80	0.0	0.1	0.3	0.5	0.7	0.9	1.1	1.2	1.3	1.3	1.2	1.0	0.8	0.6	0.4	0.2	0.1	0.0	11.7	1.0
-70	0.0	0.2	0.4	0.7	1.1	1.4	1.7	1.9	2.0	2.0	1.9	1.6	1.3	0.9	0.6	0.3	0.1	0.0	18.1	13.8
-60	0.0	0.2	0.5	1.0	1.4	2.1	2.9	3.6	4.0	3.9	3.4	2.6	1.9	1.3	0.8	0.4	0.2	0.0	30.3	28.3
-50	0.1	0.2	0.7	1.2	2.1	3.6	5.2	6.4	7.0	6.9	6.0	4.6	3.0	1.8	1.0	0.5	0.2	0.0	50.6	49.3
-40	0.1	0.3	0.8	1.5	3.2	5.5	7.9	9.8	10.7	10.5	9.4	7.2	4.6	2.5	1.3	0.6	0.2	0.0	76.3	75.4
-30	0.1	0.3	0.8	2.0	4.4	7.4	10.2	12.0	12.9	12.8	11.7	9.6	6.4	3.4	1.5	0.7	0.2	0.0	96.6	95.9
-20	0.1	0.3	0.9	2.4	5.3	8.7	11.5	13.3	14.2	14.1	13.0	10.9	7.8	4.2	1.7	0.8	0.3	0.0	109.5	108.8
-10	0.1	0.4	1.0	2.7	5.9	9.4	12.1	13.9	14.8	14.7	13.6	11.5	8.4	4.6	1.9	0.8	0.3	0.0	115.7	115.2
0	0.1	0.4	1.0	2.6	5.8	9.3	12.0	13.8	14.7	14.6	13.5	11.4	8.3	4.5	1.8	0.8	0.3	0.0	115.0	114.4
10	0.1	0.3	0.9	2.3	5.2	8.5	11.2	13.0	13.9	13.8	12.8	10.7	7.5	4.0	1.7	0.8	0.3	0.0	107.1	106.5
20	0.1	0.3	0.8	1.9	4.2	7.0	9.7	11.6	12.4	12.3	11.3	9.1	6.0	3.2	1.4	0.7	0.2	0.0	92.3	91.6
30	0.1	0.3	0.7	1.4	3.0	5.1	7.2	8.9	9.7	9.5	8.5	6.5	4.2	2.3	1.2	0.6	0.2	0.0	69.7	68.7
40	0.0	0.2	0.6	1.1	1.9	3.3	4.6	5.6	5.9	5.8	5.1	4.0	2.6	1.6	1.0	0.5	0.2	0.0	44.2	42.8
50	0.0	0.2	0.5	0.9	1.3	1.9	2.5	3.0	3.1	3.0	2.7	2.2	1.6	1.2	0.7	0.4	0.2	0.0	25.5	23.3
60	0.0	0.2	0.4	0.7	1.0	1.3	1.5	1.7	1.7	1.7	1.6	1.4	1.1	0.8	0.5	0.3	0.1	0.0	16.0	9.1
70	0.0	0.1	0.3	0.4	0.6	0.8	0.9	1.0	1.0	1.0	1.0	0.8	0.7	0.5	0.3	0.2	0.1	0.0	9.8	0.0
80	0.0	0.1	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.1	0.1	0.0	0.0	4.3	0.0
90	0.8	4.3	10.9	23.9	47.9	77.1	103.2	121.8	130.6	129.2	117.4	95.9	67.1	37.9	18.3	8.7	3.1	0.5	999	
Flux(T)	0.0	0.8	7.8	20.9	44.9	74.1	100.0	118.4	127.2	125.8	114.0	92.5	63.7	34.5	14.8	4.5	0.0	0.0		944
Flux(E)	0.0	0.8	7.8	20.9	44.9	74.1	100.0	118.4	127.2	125.8	114.0	92.5	63.7	34.5	14.8	4.5	0.0	0.0		944

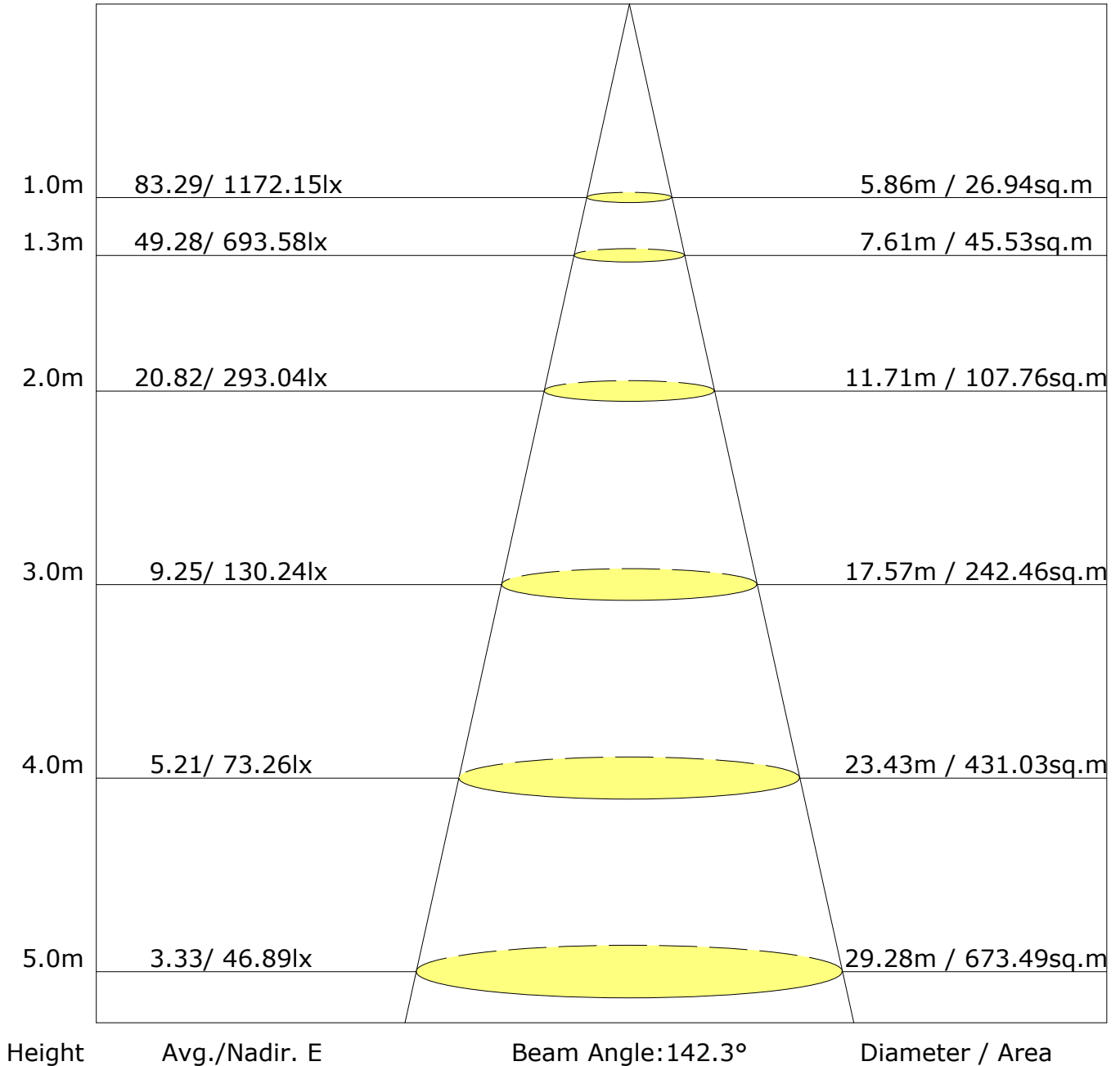
Gamma Plane (°): 0.0-90.0: 5.0
 Test Device: GPM-1600L
 Distance: 7.172 m [K=1.0000]
 Humidity:
 Inspector:

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



The Average Illuminance Effective Figure

Flux Out: 2243.76lm



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	16.9	18.1	17.2	18.4	18.6	17.4	18.7	17.7	18.9	19.1
3H	17.6	18.7	17.9	19.0	19.3	18.3	19.4	18.6	19.6	19.9
4H	17.9	18.9	18.2	19.2	19.5	18.7	19.8	19.0	20.0	20.3
6H	18.1	19.1	18.5	19.4	19.7	19.2	20.1	19.5	20.4	20.8
8H	18.2	19.1	18.5	19.4	19.8	19.4	20.3	19.7	20.6	21.0
12H	18.2	19.1	18.6	19.4	19.8	19.6	20.5	19.9	20.8	21.1
X=4H Y=2H	17.2	18.3	17.5	18.5	18.8	17.7	18.7	18.0	19.0	19.3
3H	18.1	19.0	18.5	19.3	19.7	18.7	19.6	19.1	19.9	20.2
4H	18.5	19.3	18.9	19.7	20.0	19.3	20.1	19.7	20.4	20.8
6H	18.8	19.6	19.3	19.9	20.3	19.9	20.6	20.3	21.0	21.4
8H	19.0	19.6	19.4	20.0	20.4	20.2	20.8	20.6	21.2	21.6
12H	19.0	19.6	19.5	20.0	20.5	20.4	21.0	20.9	21.4	21.9
X=8H Y=4H	18.7	19.4	19.1	19.8	20.2	19.4	20.1	19.9	20.5	20.9
6H	19.2	19.7	19.7	20.1	20.6	20.2	20.7	20.6	21.1	21.6
8H	19.4	19.8	19.9	20.3	20.8	20.5	21.0	21.0	21.5	21.9
12H	19.5	19.9	20.0	20.4	20.9	20.9	21.3	21.4	21.8	22.3
X=12H Y=4H	18.7	19.3	19.2	19.7	20.2	19.4	20.0	19.9	20.4	20.9
6H	19.3	19.7	19.7	20.2	20.7	20.2	20.7	20.7	21.1	21.6
8H	19.5	19.9	20.0	20.4	20.9	20.6	21.0	21.1	21.5	22.0
Variations with the observer position at spacings:										
S=1.0H	+0.5/-0.7					+0.4/-0.5				
S=1.5H	+1.0/-1.4					+1.0/-1.2				
S=2.0H	+2.0/-1.7					+1.9/-1.8				

Calculate in accordance with CIE Pub.117. The table is revised with 2368lm ($8\log(F/F_0) = 3.0$).

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	0.67	0.76	0.82	0.87	0.93	0.97	1.00	1.03	1.06	
	0.30		0.60	0.70	0.76	0.81	0.88	0.92	0.95	1.00	1.03	
	0.20		0.55	0.65	0.71	0.76	0.83	0.88	0.92	0.97	1.00	
0.50	0.50	0.20	0.65	0.74	0.80	0.84	0.90	0.93	0.96	0.99	1.01	
	0.30		0.59	0.68	0.75	0.79	0.85	0.90	0.93	0.97	0.99	
	0.20		0.55	0.64	0.71	0.75	0.82	0.86	0.90	0.94	0.97	
0.30	0.50	0.20	0.64	0.72	0.78	0.82	0.87	0.90	0.93	0.96	0.98	
	0.30		0.59	0.67	0.73	0.78	0.83	0.87	0.90	0.93	0.96	
	0.20		0.55	0.64	0.70	0.74	0.80	0.84	0.87	0.91	0.94	
0.00	0.00	0.00	0.53	0.61	0.67	0.71	0.77	0.81	0.83	0.87	0.89	
Rating:20W 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(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	0.84	0.69	0.58	0.50	0.40	0.33	0.29	0.22	0.18	
	0.30		0.70	0.59	0.51	0.45	0.36	0.31	0.26	0.21	0.17	
	0.20		0.60	0.51	0.45	0.40	0.33	0.28	0.25	0.20	0.16	
0.50	0.50	0.20	0.81	0.66	0.55	0.48	0.38	0.35	0.27	0.21	0.17	
	0.30		0.69	0.57	0.49	0.43	0.35	0.29	0.25	0.20	0.16	
	0.20		0.59	0.50	0.44	0.39	0.32	0.27	0.24	0.19	0.16	
0.30	0.50	0.20	0.78	0.63	0.53	0.46	0.36	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	0.16	
	0.20		0.59	0.49	0.43	0.38	0.31	0.26	0.23	0.18	0.15	
0.00	0.00	0.00	0.47	0.39	0.33	0.29	0.23	0.19	0.17	0.13	0.11	
Rating:20W 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	0.20	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	0.08	0.10	0.12	0.13	0.14	0.16	0.17
0.50	0.50	0.20	0.14	0.16	0.17	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	0.08	0.10	0.12	0.13	0.14	0.16	0.17
0.30	0.50	0.20	0.14	0.15	0.16	0.17	0.18	0.18	0.19	0.19	0.20
	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	0.09	0.11	0.13	0.14	0.15	0.16
0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA

Rating: 20W Photometrically tested without ceiling board.
 Multiply UF values by service correction factors
 Calculate in accordance with CIBSE Technical Memorandum NO.5 1980

Zonal Lumen (Continue 1)

cone flux(90°): 1629.35 lm

%lum = 68.8%
%lamp = 68.8%

cone flux(120°): 2078.91 lm

%lum = 87.8%
%lamp = 87.8%

LED Average Luminance Report

Avg.L	cd/m ²
L 0-180(65) av	4752.88
L 0-180(75) av	4409.33
L 0-180(85) av	5167.59
L 90-270(65) av	4244.60
L 90-270(75) av	4472.48
L 90-270(85) av	5910.44
L 45(65) av	4498.74
L 45(75) av	4440.91
L 45(85) av	5539.01

Standard: GB/T 29293-2012