

Report No.:

Test Time: 2023-10-20 14:13

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Lamp Catalog: 4000K

Number of Lamps:

Luminous Length (mm): 85

Luminous Height (mm):

Current: 0.0370 A

Power Factor: 0.9120

Luminaire Description: ADL90DP

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 85

Voltage: 231.00 V

Power: 7.83 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 860.8 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(50%): H72.4

Vertical Diffuse Angle(50%): V63.7

Luminous Efficacy (lm/w): 109.93

Max. Intensity: 665.7 cd

S/MH(C0/C180): 1.05

Total Rated Lamp Lumens: 860.8 lm

Efficiency: 100%

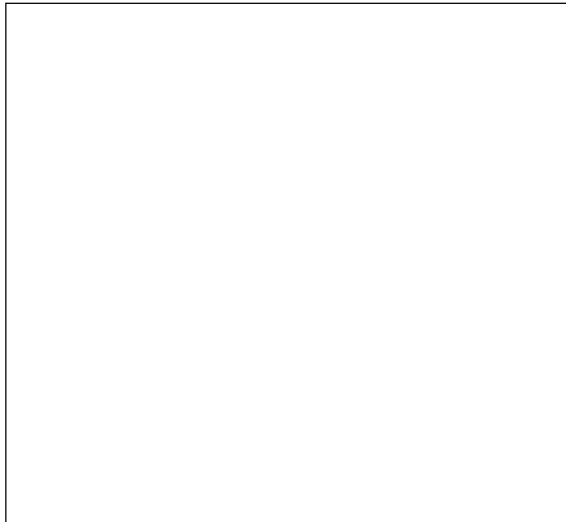
Upward Ratio: 0%

C0r0 Intensity: 665.69 cd

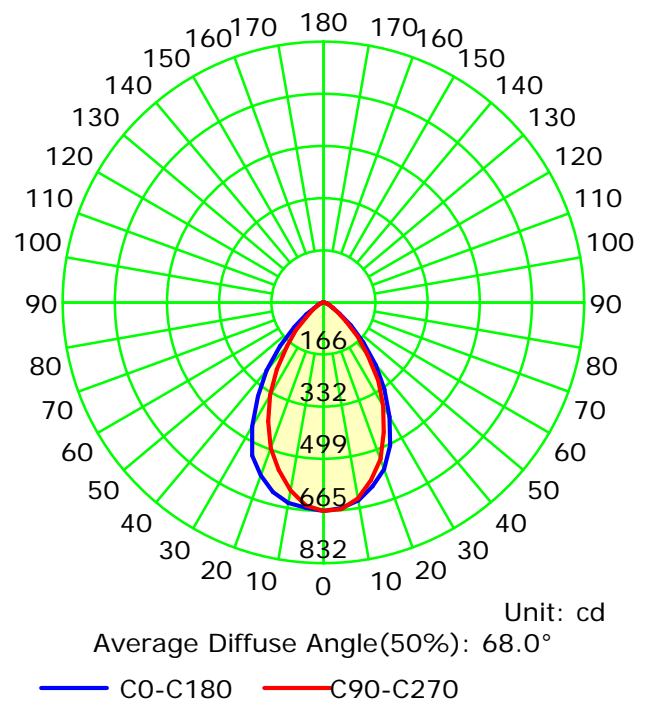
Pos of Max. Intensity: H0 V0

S/MH(C90/C270): 0.92

## Picture Of Luminaire



### 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

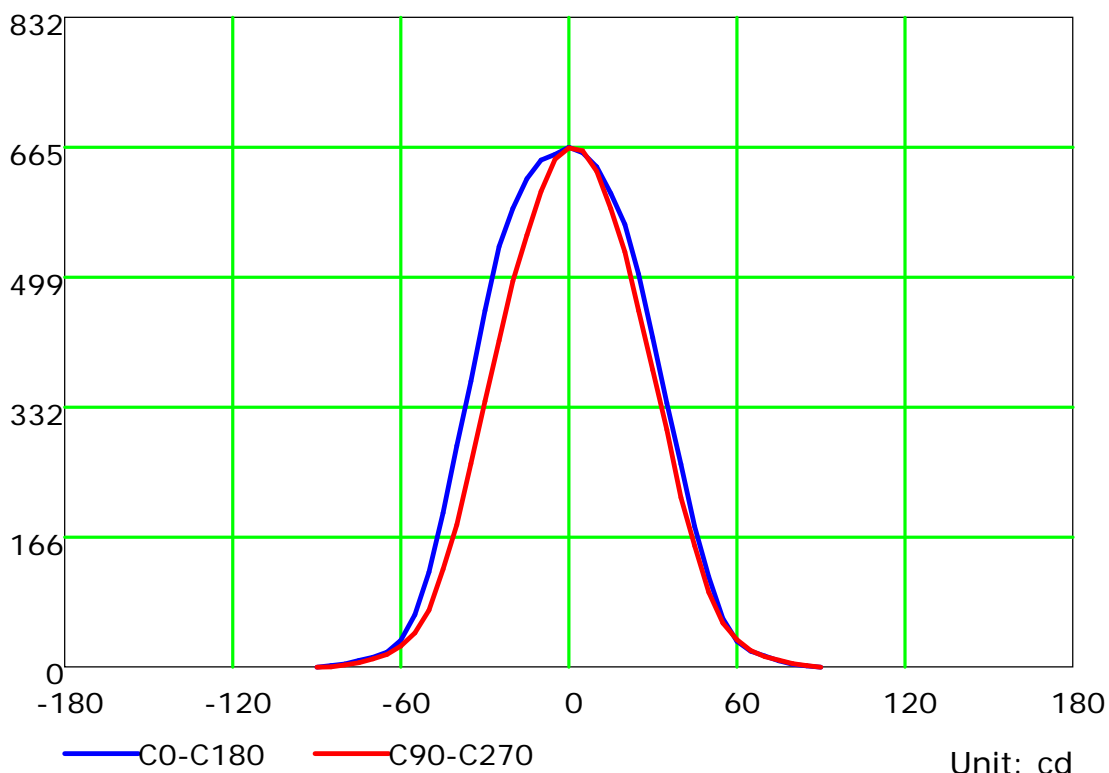
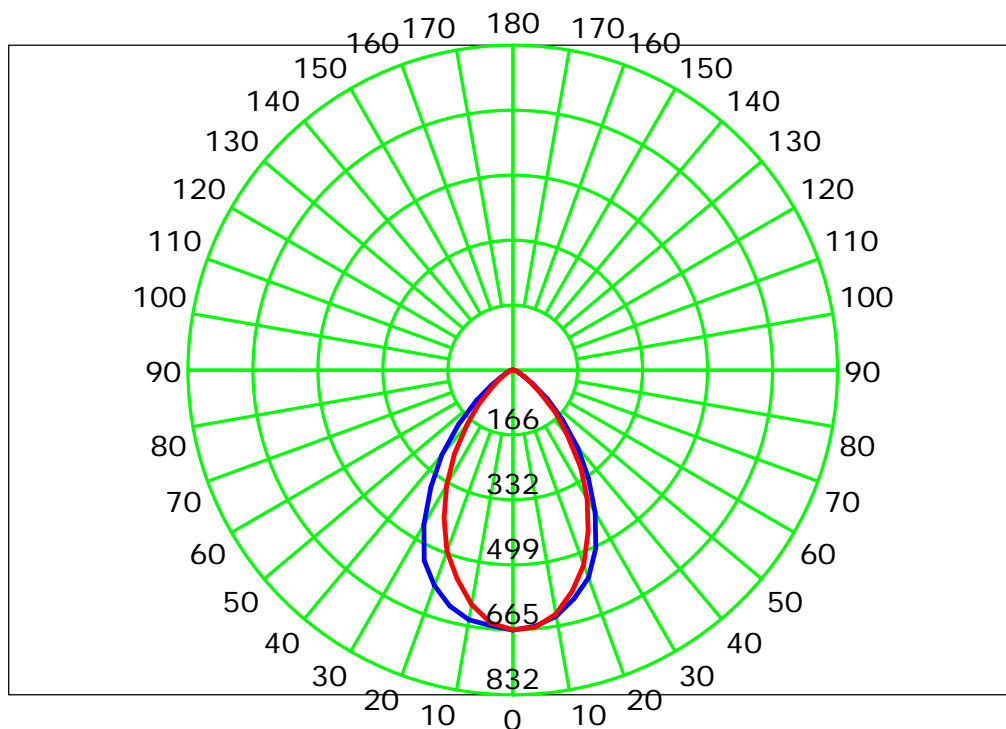
Test Device: GPM-1600L

Distance: 7.305 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: 7.305 m [K=1.0000]  
 Humidity:  
 Inspector:

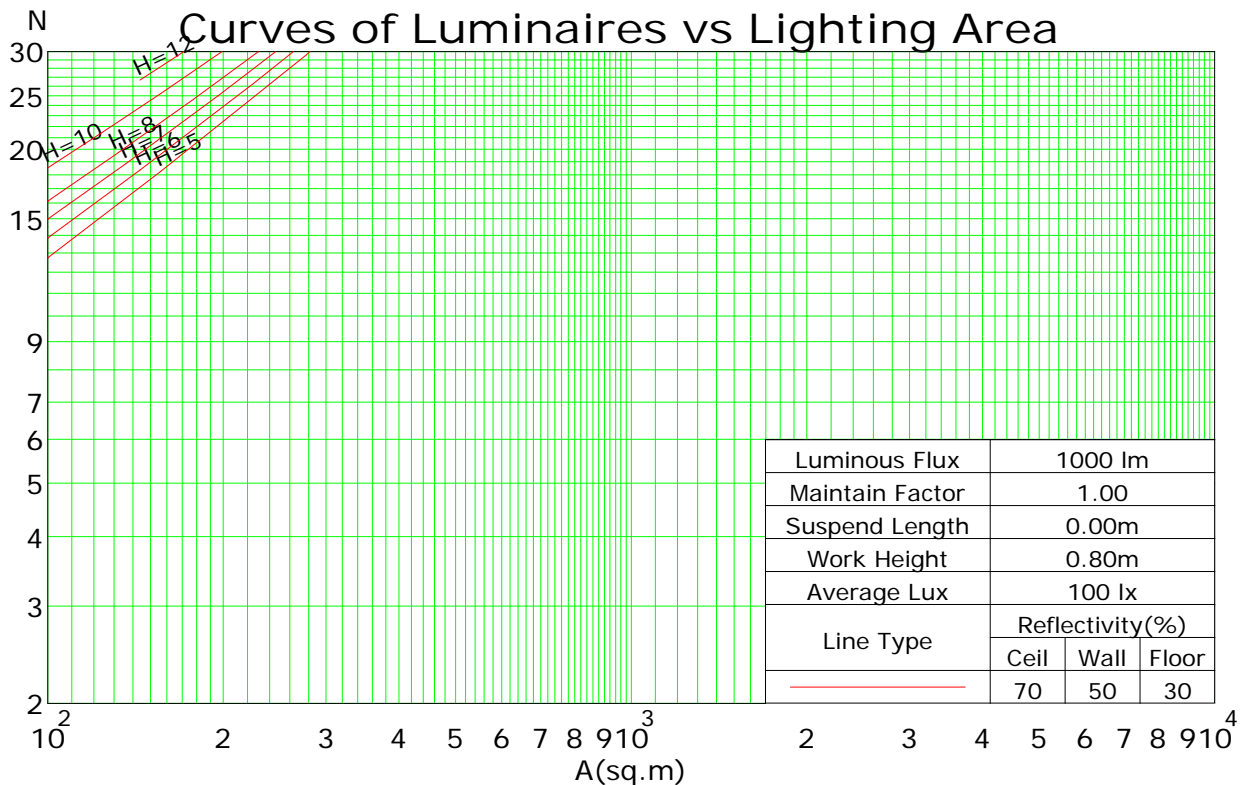
## Coefficients Of Utilization - Zonal Cavity Method

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	1.03	1.10	1.07	1.04	1.02	1.03	1.01	0.99	0.99	0.97	0.96	0.95	0.94	0.93	0.91
2	1.05	0.99	0.95	0.91	1.03	0.98	0.93	0.90	0.94	0.91	0.88	0.91	0.88	0.86	0.88	0.86	0.84	0.82
3	0.99	0.91	0.85	0.80	0.97	0.90	0.84	0.80	0.87	0.82	0.78	0.84	0.80	0.77	0.82	0.79	0.76	0.74
4	0.92	0.83	0.77	0.72	0.90	0.82	0.76	0.71	0.80	0.75	0.70	0.78	0.73	0.70	0.76	0.72	0.69	0.67
5	0.87	0.77	0.70	0.65	0.85	0.76	0.69	0.64	0.74	0.68	0.64	0.72	0.67	0.63	0.70	0.66	0.63	0.61
6	0.81	0.71	0.64	0.59	0.80	0.70	0.63	0.59	0.68	0.63	0.58	0.67	0.62	0.58	0.66	0.61	0.57	0.56
7	0.77	0.66	0.59	0.54	0.75	0.65	0.58	0.54	0.64	0.58	0.53	0.62	0.57	0.53	0.61	0.56	0.53	0.51
8	0.72	0.61	0.54	0.49	0.71	0.61	0.54	0.49	0.59	0.53	0.49	0.58	0.53	0.49	0.57	0.52	0.49	0.47
9	0.68	0.57	0.50	0.46	0.67	0.57	0.50	0.46	0.55	0.50	0.45	0.55	0.49	0.45	0.54	0.49	0.45	0.43
10	0.64	0.53	0.47	0.42	0.63	0.53	0.47	0.42	0.52	0.46	0.42	0.51	0.46	0.42	0.50	0.45	0.42	0.40

Spacing Criteria (0-180): 1.05

Spacing Criteria (90-270): 0.92

Spacing Criteria (Diagonal): 1.01



C Plane (°): 0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°): 0.0-90.0: 5.0

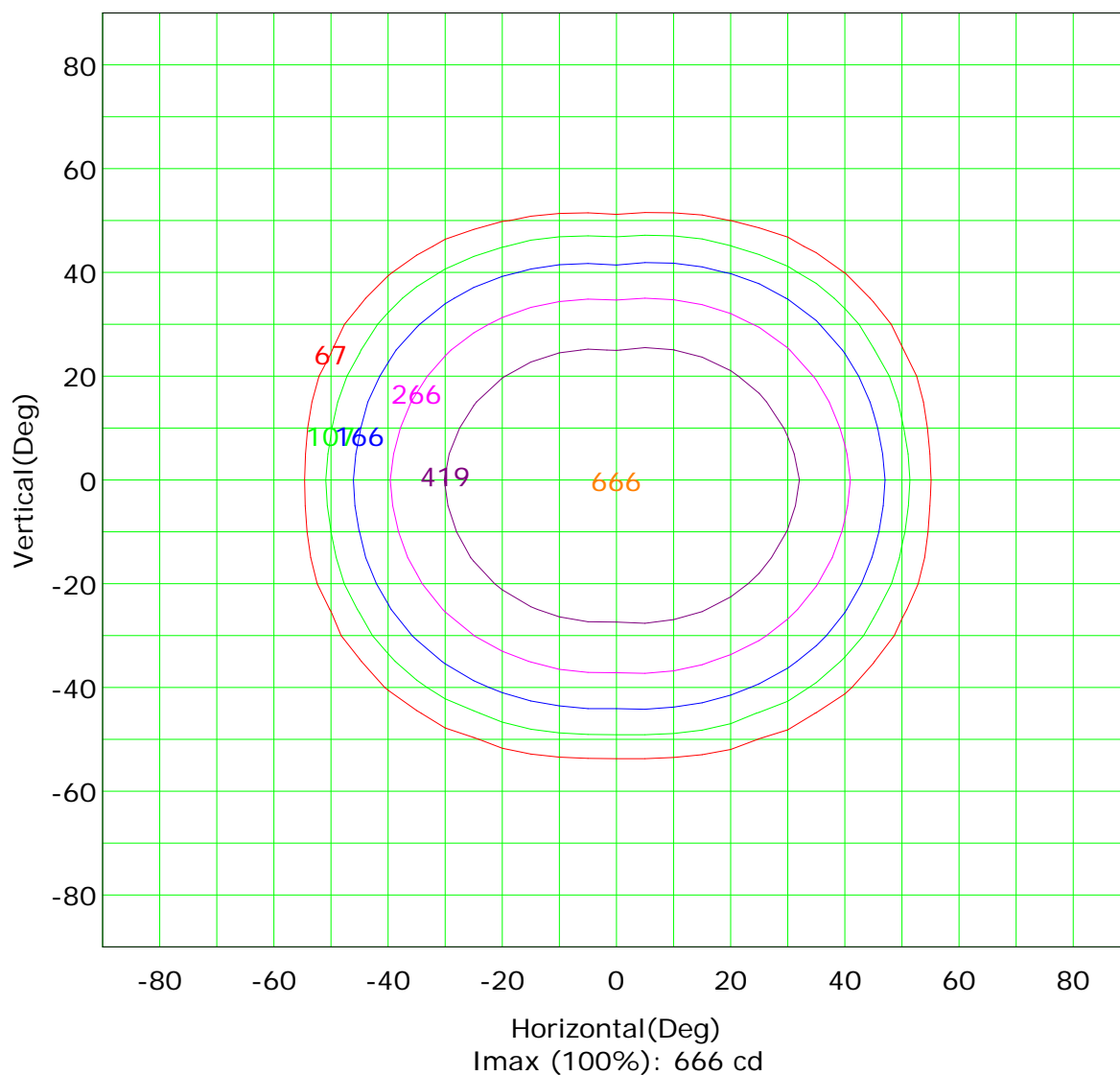
Test Device: GPM-1600L

Distance: 7.305 m [K=1.0000]

Humidity:

Inspector:

## Isocandela (rectangle)



— ( 10%):	67 cd	— ( 16%):	107 cd
— ( 25%):	166 cd	— ( 40%):	266 cd
— ( 63%):	419 cd	— (100%):	666 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

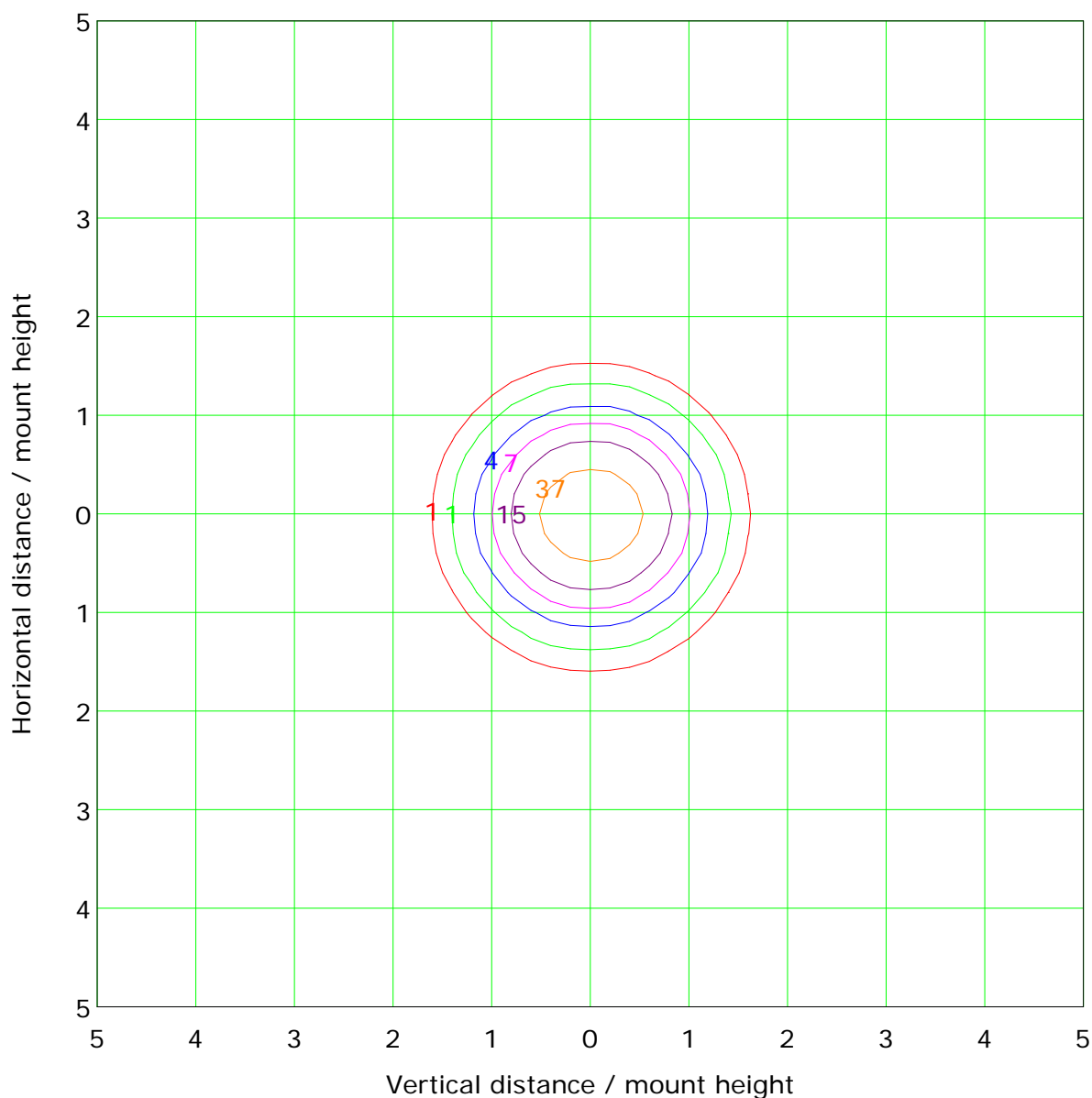
Test Device: GPM-1600L

Distance: 7.305 m [K=1.0000]

Humidity:

Inspector:

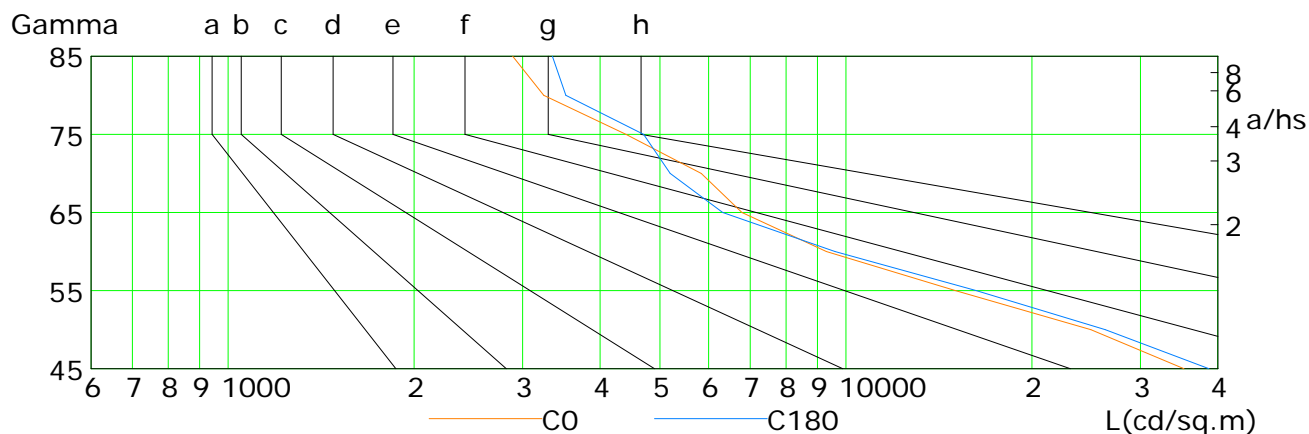
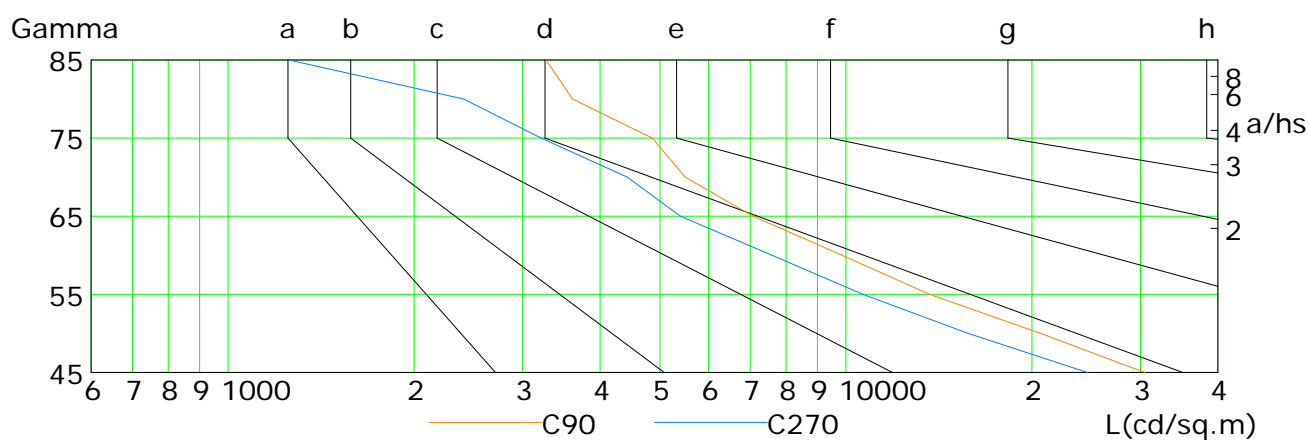
## IsoLux Plot



## 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	35280	24915	15050	9298	6792	5835	4406	3244	2890
C90	30463	20663	13660	9869	7081	5496	4861	3611	3271
C180	38698	26289	16262	9611	6321	5196	4706	3523	3351
C270	24612	15779	10654	7596	5397	4427	3214	2407	1255

C Plane (°): 0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°): 0.0-90.0: 5.0

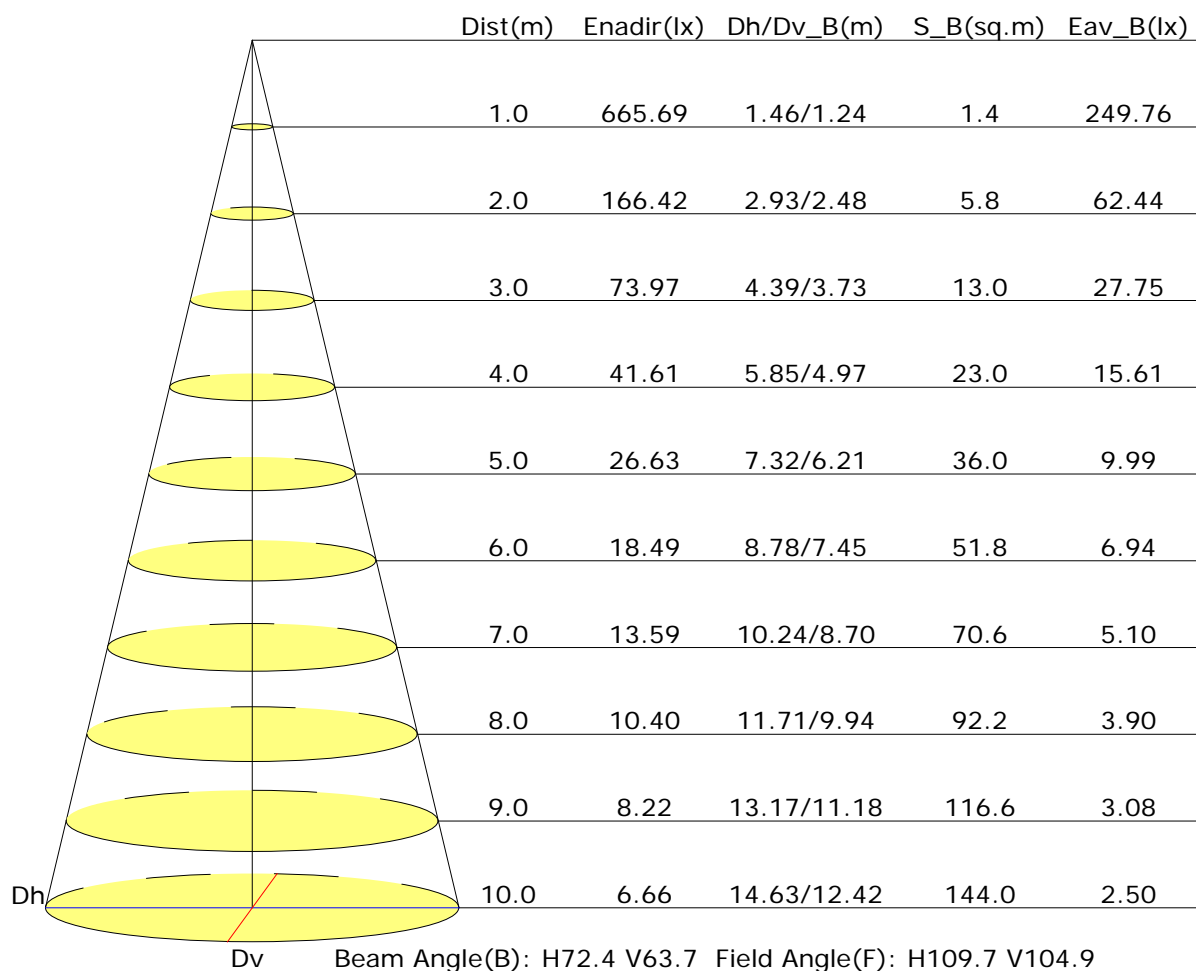
Test Device: GPM-1600L

Distance: 7.305 m [K=1.0000]

Humidity:

Inspector:

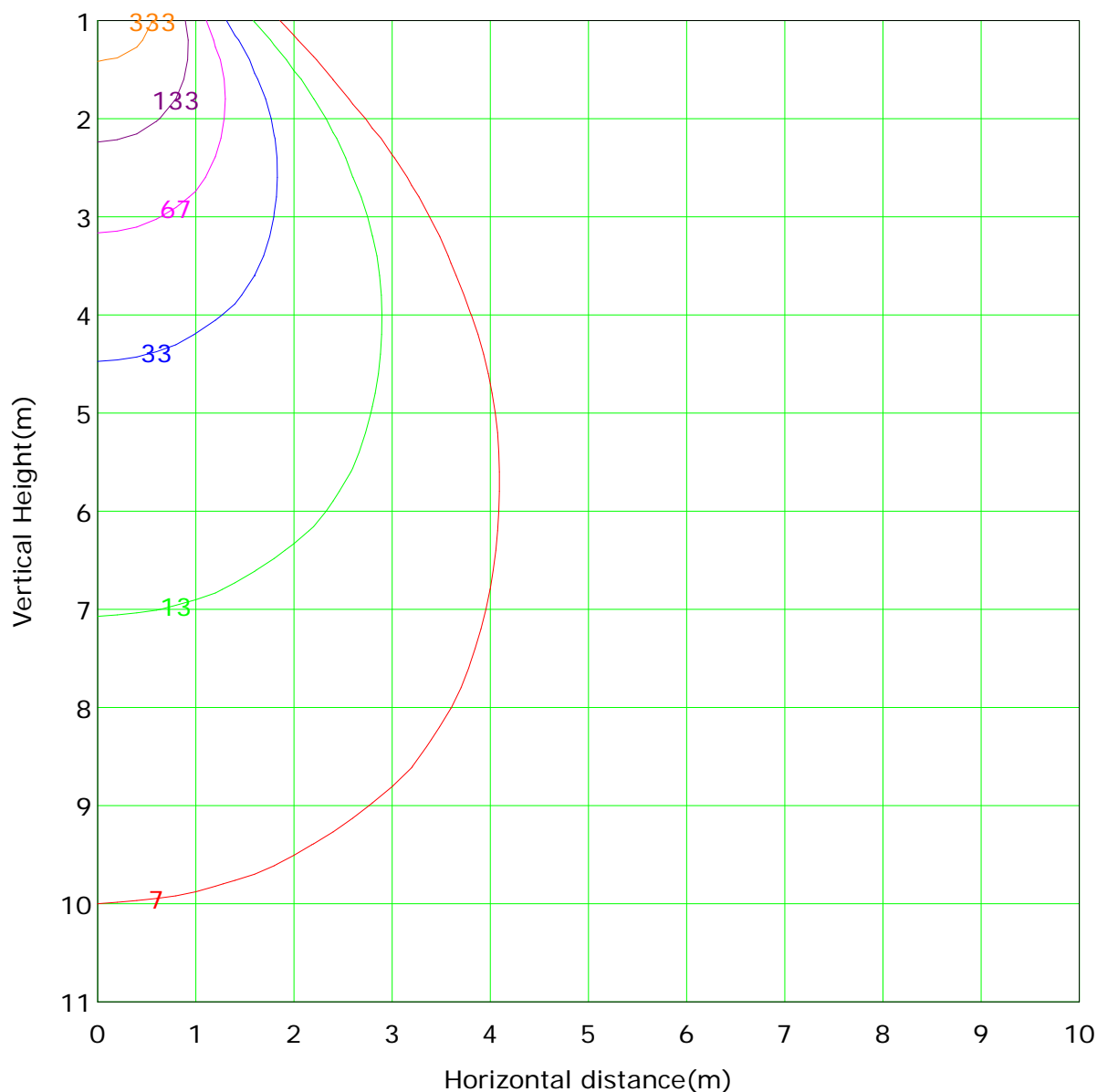
## Illuminance at a Distance



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: 7.305 m [K=1.0000]  
 Humidity:  
 Inspector:

## Vertical IsoLux Plot



Lowest(m): 1.0m    Highest(m): 11.0m    Max Lux: 665.7 lx

— ( 1%): 6.7 lx	— ( 2%): 13.3 lx
— ( 5%): 33.3 lx	— (10%): 66.6 lx
— (20%): 133.1 lx	— (50%): 332.8 lx
— (100%): 665.7 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: 7.305 m [K=1.0000]  
 Humidity:  
 Inspector:

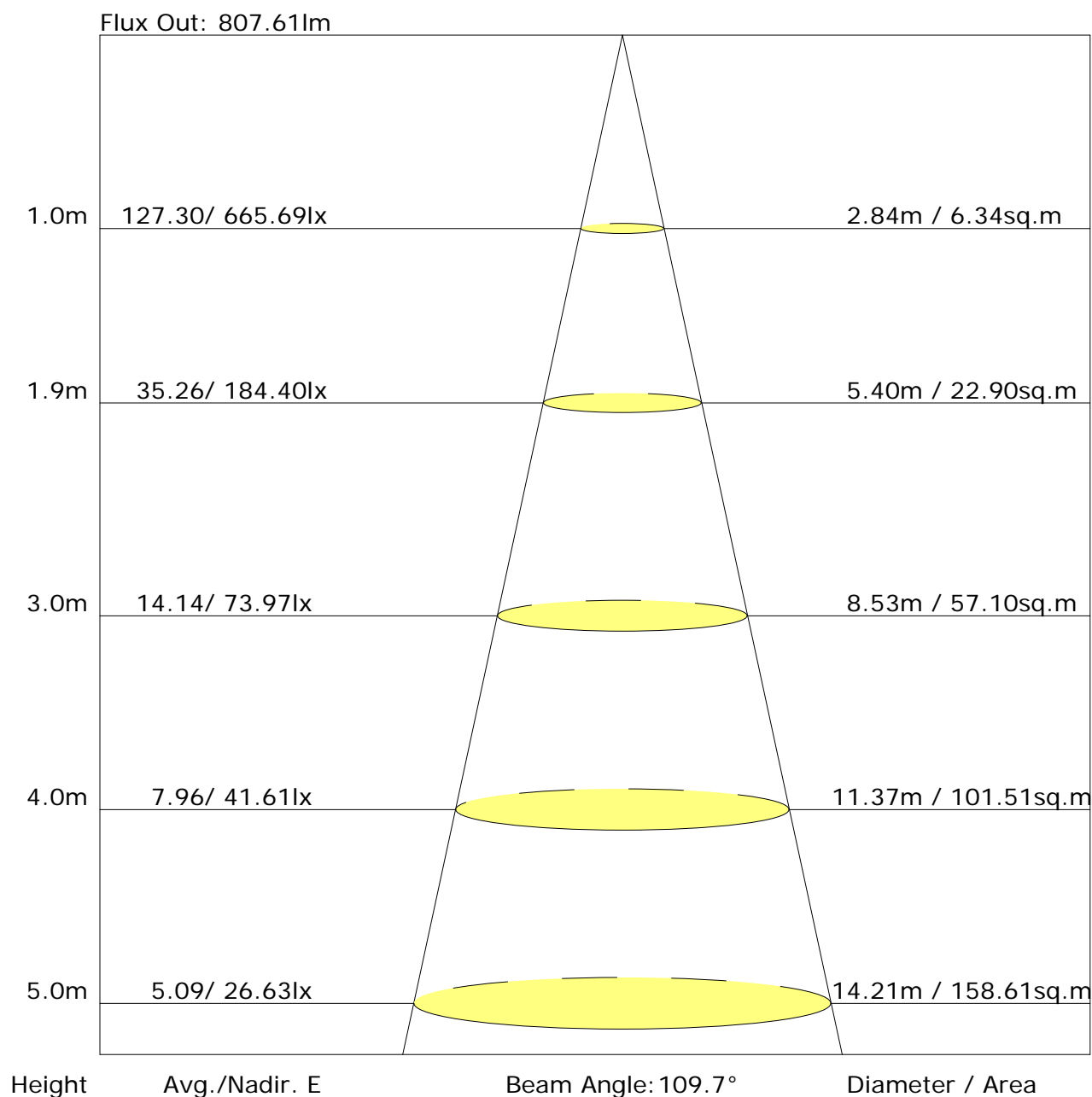


## Unit: 1m

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: 7.305 m [K=1.0000]  
Humidity:  
Inspector:

## 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: 7.305 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	21.2	22.3	21.5	22.5	22.7	20.4	21.5	20.7	21.7	21.9
3H	21.3	22.2	21.6	22.5	22.7	20.5	21.4	20.8	21.7	21.9
4H	21.3	22.2	21.6	22.5	22.7	20.5	21.4	20.8	21.7	21.9
6H	21.3	22.1	21.6	22.4	22.7	20.5	21.3	20.8	21.6	21.9
8H	21.3	22.0	21.6	22.3	22.7	20.5	21.3	20.8	21.6	21.9
12H	21.2	22.0	21.6	22.3	22.6	20.5	21.2	20.8	21.5	21.9
X=4H Y=2H	21.2	22.0	21.5	22.3	22.6	20.4	21.3	20.7	21.6	21.8
3H	21.3	22.1	21.7	22.4	22.7	20.6	21.3	20.9	21.6	22.0
4H	21.4	22.0	21.8	22.4	22.7	20.6	21.3	21.0	21.7	22.0
6H	21.4	22.0	21.8	22.3	22.7	20.7	21.3	21.1	21.6	22.0
8H	21.4	21.9	21.8	22.3	22.7	20.7	21.2	21.1	21.6	22.0
12H	21.4	21.8	21.8	22.2	22.7	20.7	21.1	21.1	21.5	22.0
X=8H Y=4H	21.3	21.8	21.7	22.2	22.7	20.6	21.1	21.0	21.5	21.9
6H	21.4	21.8	21.8	22.2	22.7	20.7	21.1	21.1	21.5	22.0
8H	21.4	21.7	21.8	22.2	22.7	20.7	21.1	21.2	21.5	22.0
12H	21.4	21.7	21.9	22.2	22.7	20.7	21.0	21.2	21.5	22.0
X=12H Y=4H	21.3	21.8	21.7	22.2	22.6	20.6	21.1	21.0	21.5	21.9
6H	21.3	21.7	21.8	22.2	22.6	20.6	21.0	21.1	21.5	21.9
8H	21.3	21.7	21.8	22.1	22.6	20.7	21.0	21.2	21.5	22.0
Variations with the observer position at spacings:										
S=1.0H	+1.1/-2.3					+1.4/-2.5				
S=1.5H	+2.8/-4.3					+2.7/-4.0				
S=2.0H	+4.5/-5.3					+4.5/-5.1				

Calculate in accordance with CIE Pub.117. The table is revised with 861lm ( $8\log(F/F_0) = -0.5$ ).

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: 7.305 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	0.79	0.87	0.92	0.95	1.00	1.03	1.05	1.07	1.09
	0.30		0.74	0.82	0.87	0.91	0.96	0.99	1.02	1.05	1.07
	0.20		0.70	0.78	0.83	0.87	0.93	0.96	0.99	1.03	1.05
0.50	0.50	0.20	0.78	0.85	0.90	0.93	0.97	0.99	1.01	1.04	1.05
	0.30		0.73	0.81	0.86	0.89	0.94	0.97	0.99	1.02	1.03
	0.20		0.70	0.77	0.82	0.86	0.91	0.94	0.97	1.00	1.02
0.30	0.50	0.20	0.76	0.83	0.88	0.90	0.94	0.96	0.98	1.00	1.01
	0.30		0.72	0.80	0.84	0.87	0.92	0.94	0.96	0.98	1.00
	0.20		0.69	0.77	0.81	0.85	0.89	0.92	0.94	0.97	0.99
0.00	0.00	0.00	0.68	0.75	0.79	0.82	0.86	0.89	0.90	0.93	0.94
<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	0.66	0.52	0.44	0.38	0.30	0.24	0.21	0.16	0.13	
	0.30		0.55	0.45	0.38	0.33	0.27	0.22	0.19	0.15	0.12	
	0.20		0.47	0.39	0.34	0.30	0.24	0.21	0.18	0.14	0.12	
0.50	0.50	0.20	0.63	0.50	0.41	0.36	0.28	0.27	0.19	0.15	0.12	
	0.30		0.53	0.43	0.37	0.32	0.25	0.21	0.18	0.14	0.12	
	0.20		0.46	0.38	0.33	0.29	0.23	0.20	0.17	0.13	0.11	
0.30	0.50	0.20	0.60	0.47	0.39	0.33	0.26	0.21	0.18	0.14	0.11	
	0.30		0.52	0.42	0.35	0.30	0.24	0.20	0.17	0.13	0.11	
	0.20		0.45	0.37	0.32	0.28	0.22	0.19	0.16	0.12	0.10	
0.00	0.00	0.00	0.32	0.25	0.21	0.18	0.14	0.11	0.09	0.07	0.06	
<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>												

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: 7.305 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	0.13	0.15	0.16	0.17	0.18	0.19	0.19	0.20	0.21
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.19	0.19
	0.20		0.06	0.08	0.09	0.11	0.13	0.14	0.15	0.17	0.18
0.50	0.50	0.20	0.13	0.14	0.15	0.16	0.17	0.18	0.19	0.19	0.20
	0.30		0.09	0.10	0.12	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.06	0.08	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	0.17	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		0.06	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:8W 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: 7.305 m [K=1.0000]  
Humidity:  
Inspector:

## Zonal Lumen (Continue 1)

cone flux(90°): 719.58 lm

%lum = 83.6%

%lamp = 83.6%

cone flux(120°): 829.02 lm

%lum = 96.3%

%lamp = 96.3%



## Unit: 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: 7.305 m [K=1.0000]  
Humidity:  
Inspector: