

Report No.: 20231011

Test Time: 2023/10/13 12:18

## Luminaire Property

Luminaire Manufacturer: Acolyte

Luminaire Category: Nano Pivot

Luminaire Description: Nano pivot SW 9.75 4000K

Lamp Catalog: Optic BA 25\*45 degree

Luminous Width (mm): 28

Voltage: 24.0 V

Power: 32.61 W

Luminous Length (mm): 1000

Luminous Height (mm): 36

Current: 1.358 A

Power Factor: 1.000

## Photometric Results

CIE Class: Direct

Measurement Flux: 2110.1 lm

Downward Ratio: 97%

Horizontal Diffuse Angle(10%,50%): H82.4,H40.9

Vertical Diffuse Angle(10%,50%): V70.9,V29.2

Luminaire Efficacy Rating (LER): 65

Max. Intensity: 3742.75 cd

Total Rated Lamp Lumens: 2110.1 lm

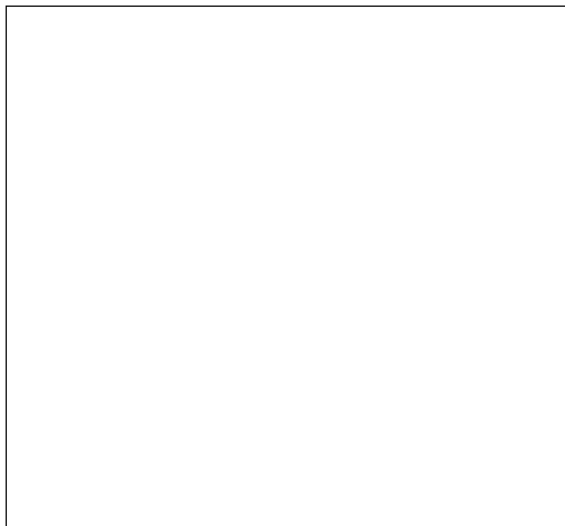
Efficiency: 100%

Upward Ratio: 3%

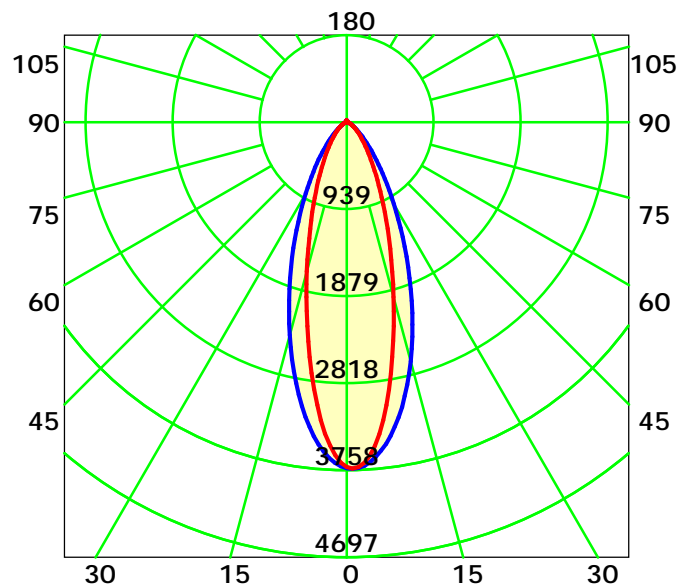
Central Intensity: 3736.26 cd

Pos of Max. Intensity: H0 V1

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd  
Average Diffuse Angle(50%): 35.0°  
— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Jacky

Gamma Plane (°):0.0-180.0: 1.0

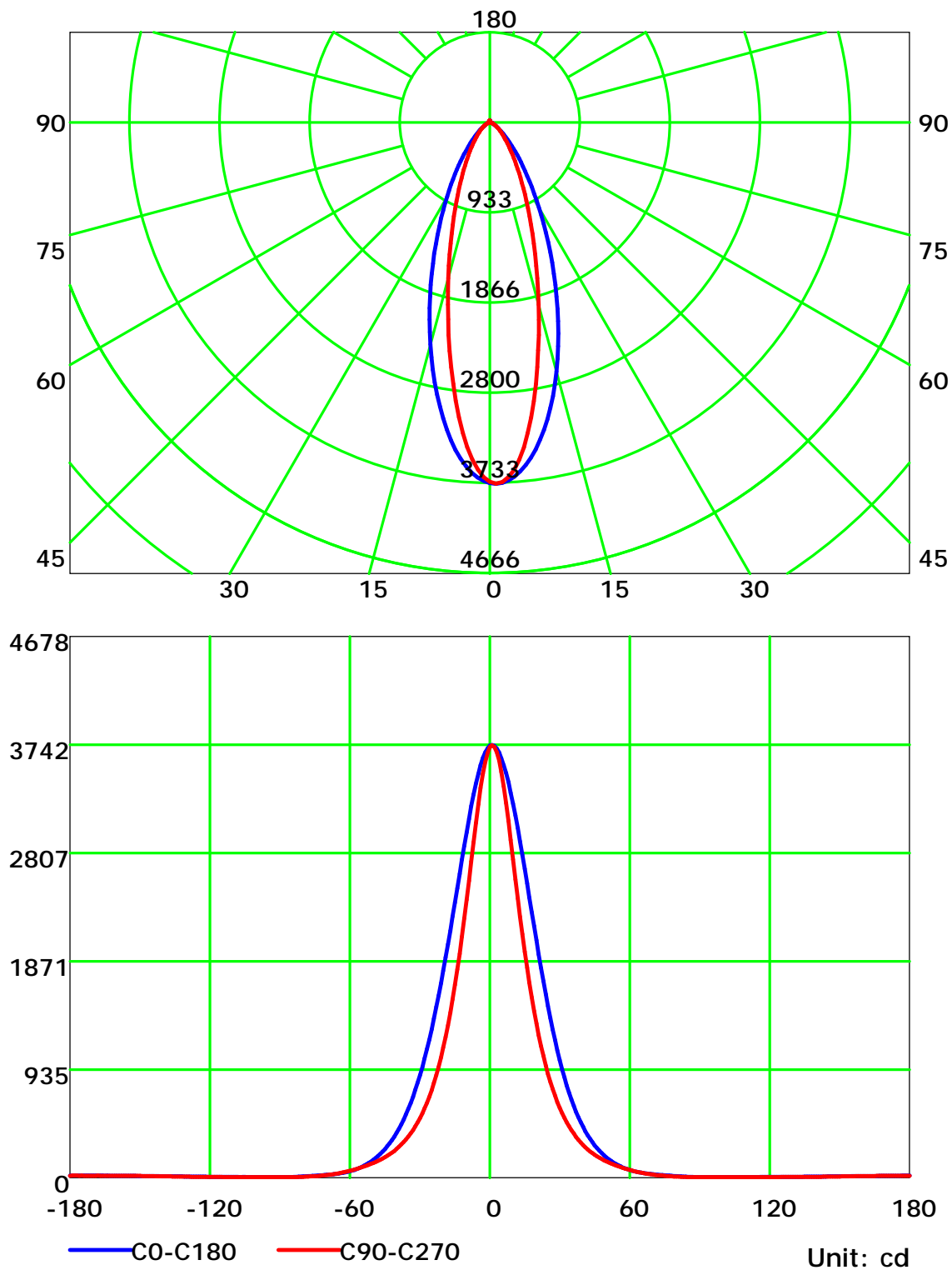
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

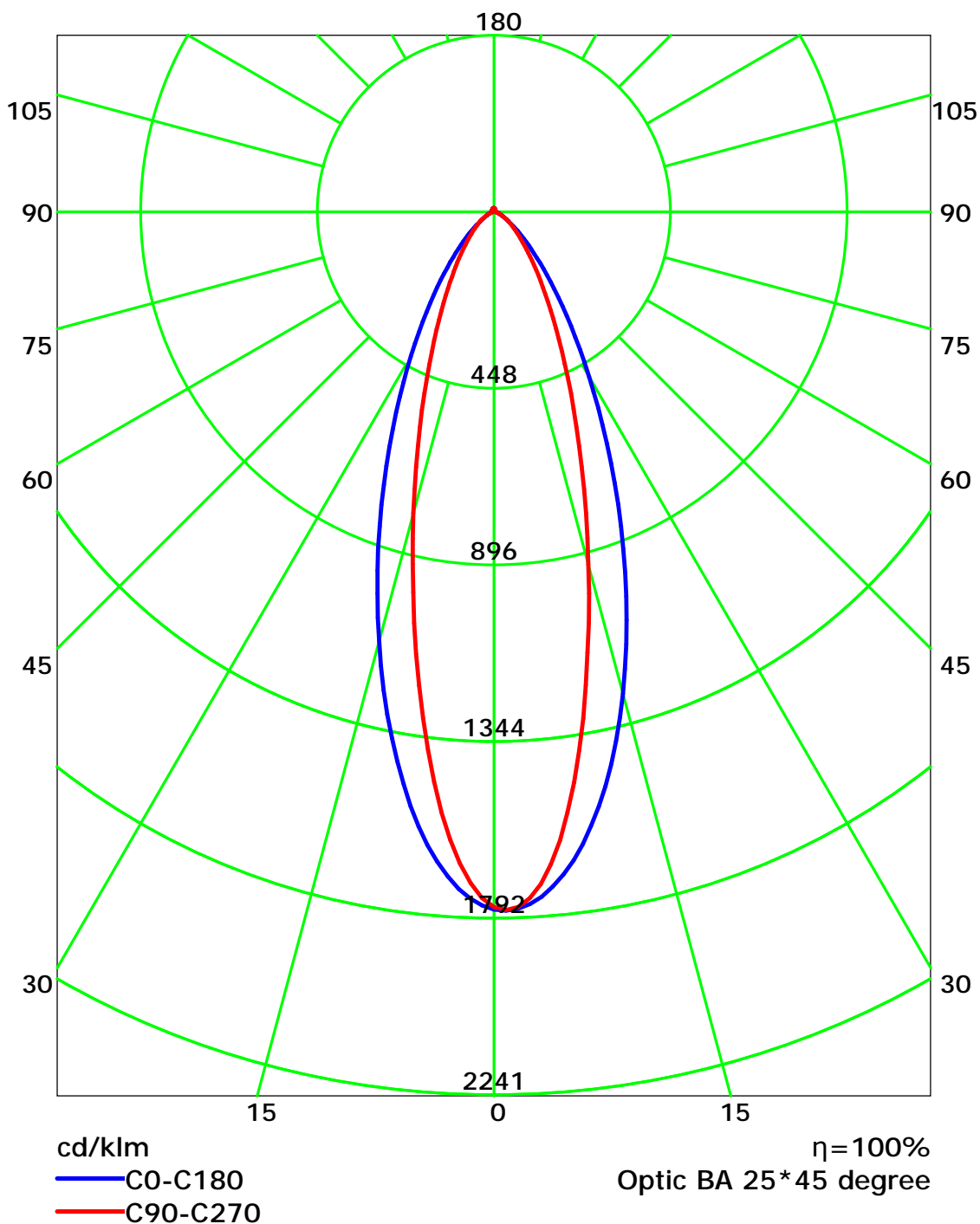
## Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

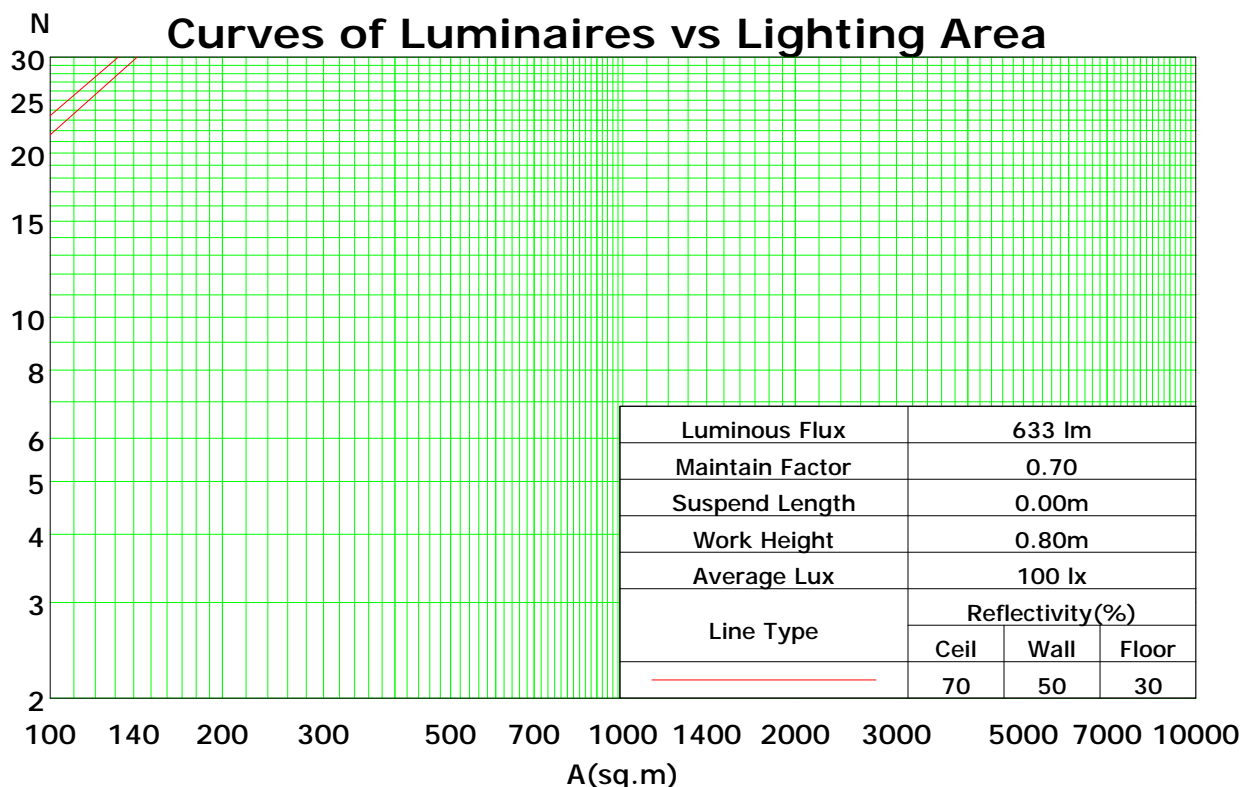
## Coefficients Of Utilization - Zonal Cavity Method

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	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	97
1	112	109	106	104	109	107	104	102	102	100	98	98	96	95	94	92	91	89
2	106	101	96	93	103	99	95	91	95	92	89	91	89	87	88	86	84	82
3	100	94	88	84	98	92	87	83	89	85	81	86	82	80	83	80	78	76
4	95	87	81	77	93	86	80	76	83	79	75	81	77	74	78	75	73	71
5	90	82	75	71	88	80	75	70	78	73	70	76	72	69	74	71	68	66
6	86	77	70	66	84	76	70	66	74	69	65	72	68	64	70	66	63	62
7	82	72	66	62	80	71	65	61	70	65	61	68	64	60	67	63	60	58
8	78	68	62	58	76	67	62	58	66	61	57	65	60	57	64	59	56	55
9	74	65	59	55	73	64	58	54	63	58	54	62	57	54	61	56	53	52
10	71	61	56	52	70	61	55	52	60	55	51	59	54	51	58	54	51	49

Spacing Criteria (0-180): 0.65

Spacing Criteria (90-270): 0.48

Spacing Criteria (Diagonal): 0.60



C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Jacky

Gamma Plane (°):0.0-180.0: 1.0

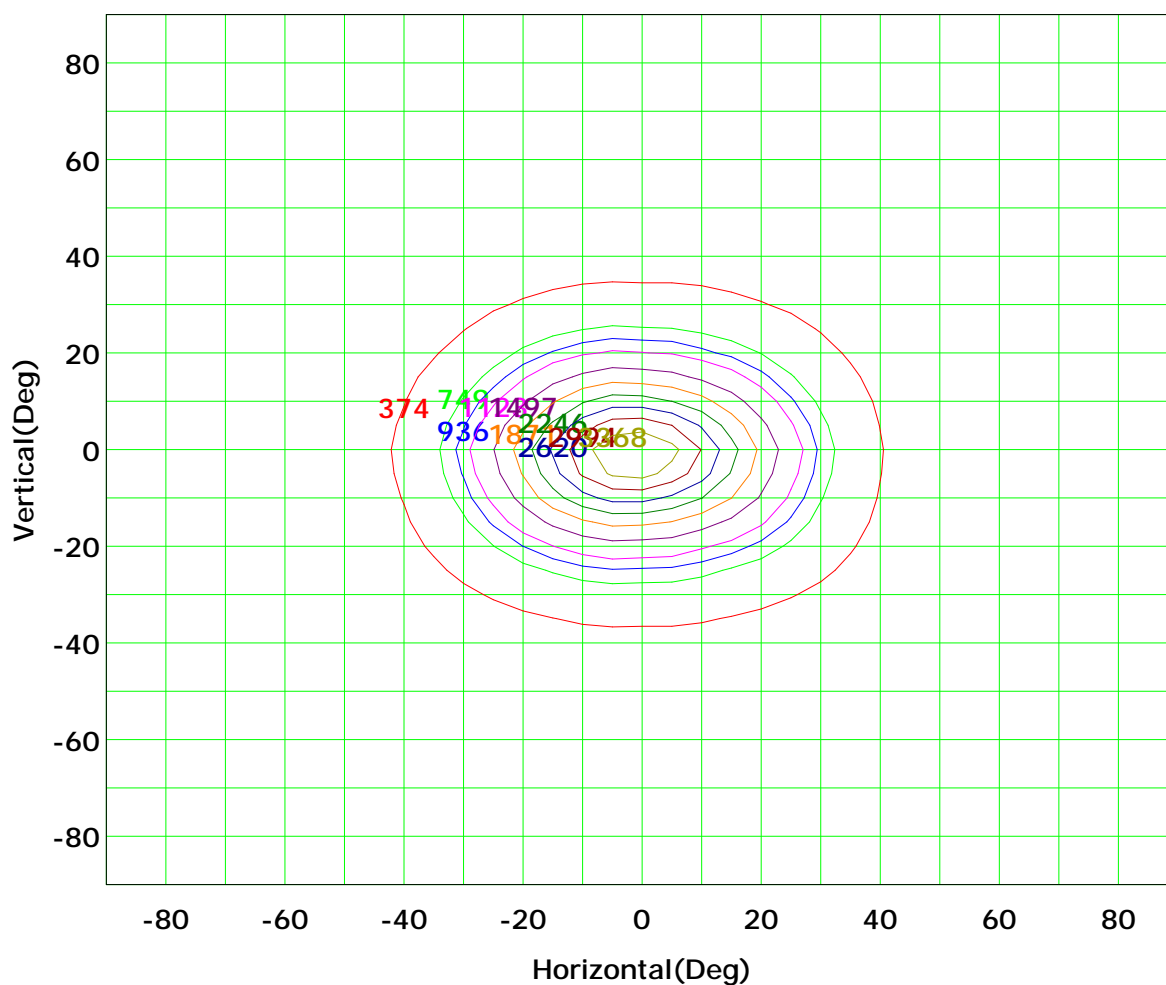
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Isocandela (rectangle)



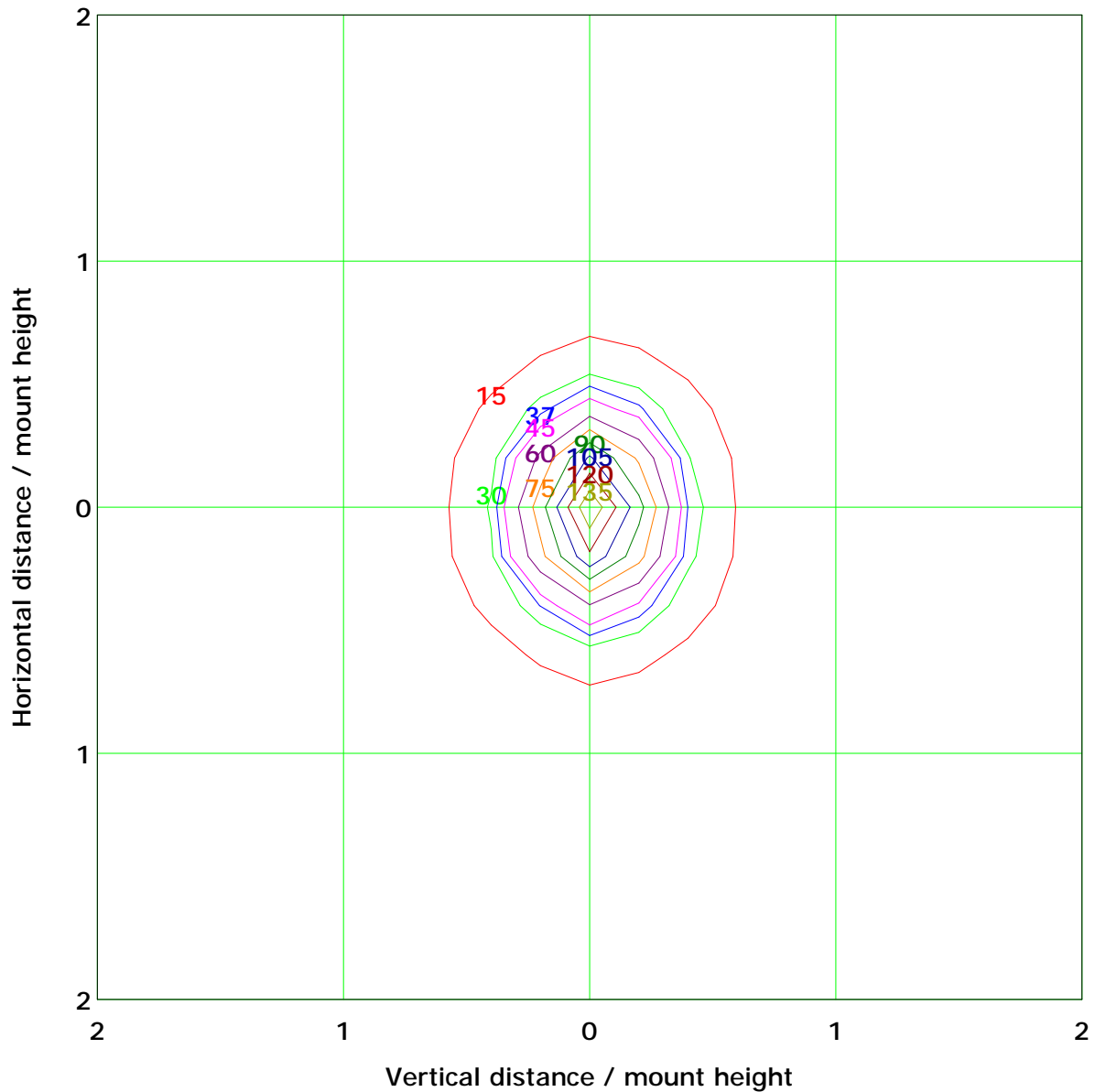
Imax (100%): 3743 cd

( 10%): 374 cd	( 20%): 749 cd
( 25%): 936 cd	( 30%): 1123 cd
( 40%): 1497 cd	( 50%): 1871 cd
( 60%): 2246 cd	( 70%): 2620 cd
( 80%): 2994 cd	( 90%): 3368 cd

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

## IsoLux Plot



Mounting Height: 5.0m		Max Lux(100%): 149.6 lx	
( 10%): 15.0 lx		( 20%): 29.9 lx	
( 25%): 37.4 lx		( 30%): 44.9 lx	
( 40%): 59.9 lx		( 50%): 74.8 lx	
( 60%): 89.8 lx		( 70%): 104.7 lx	
( 80%): 119.7 lx		( 90%): 134.7 lx	

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

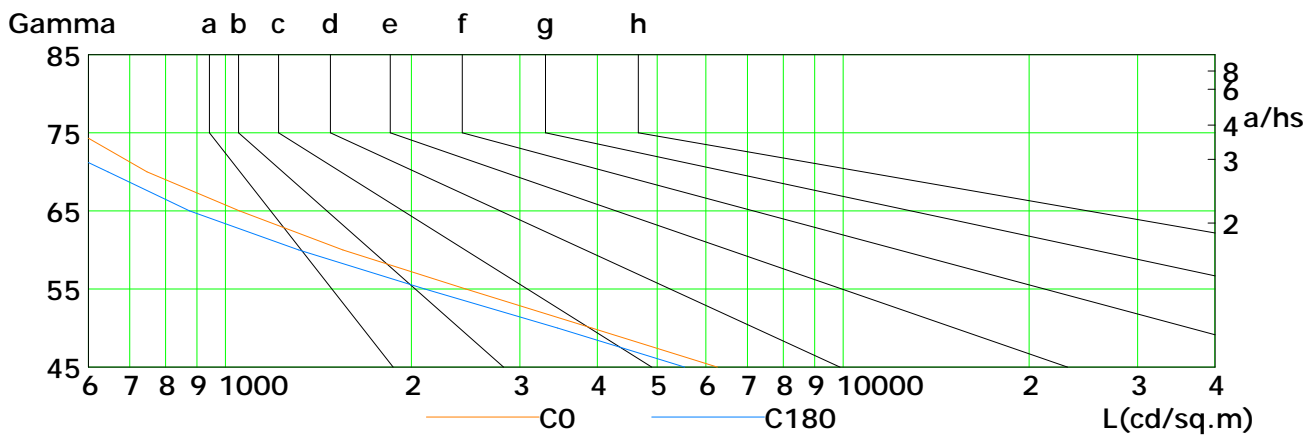
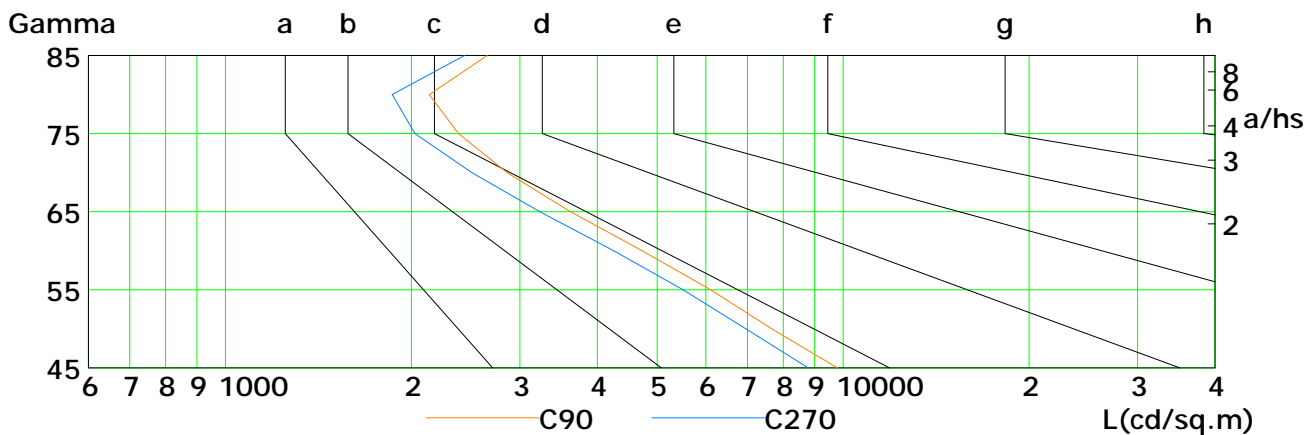
Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:



## 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



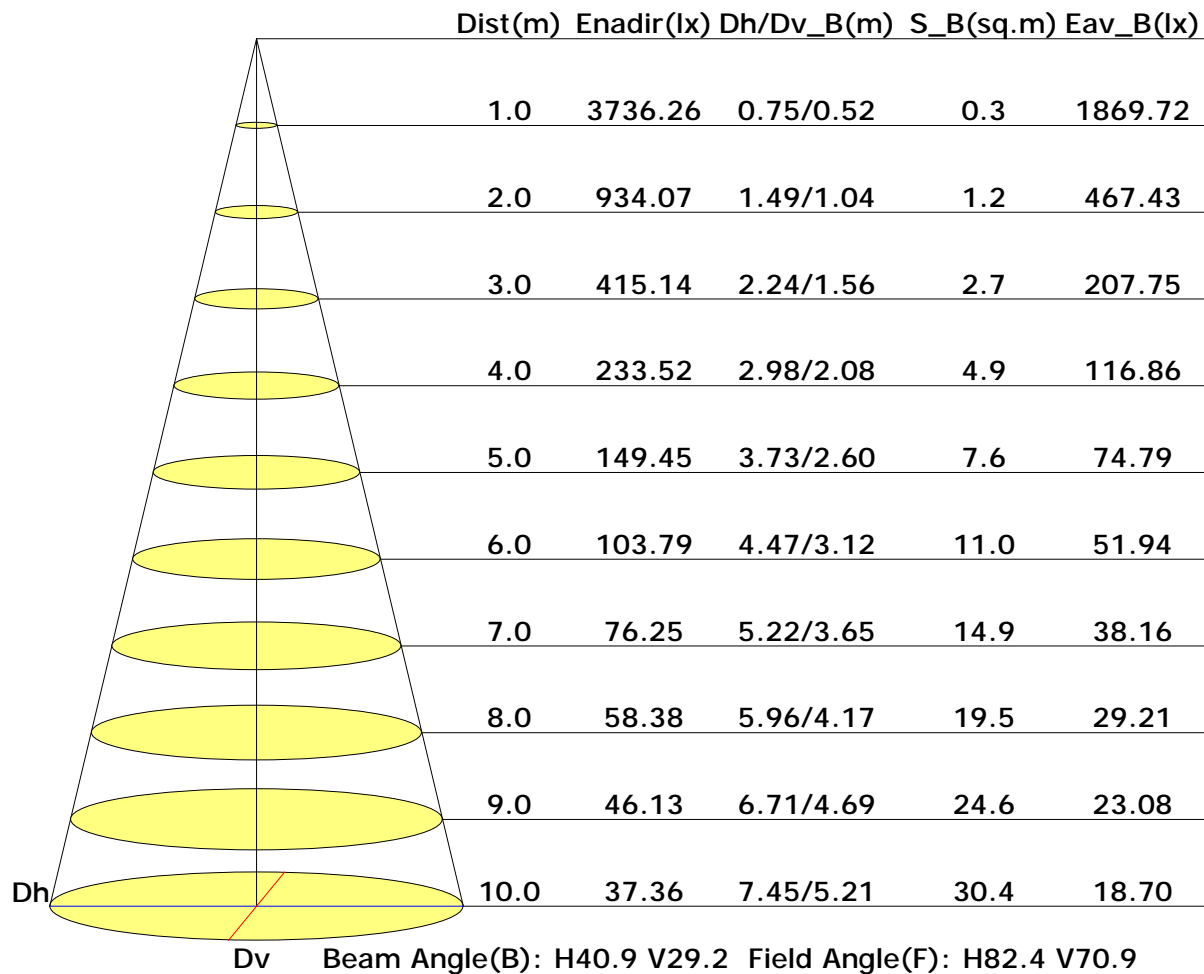
L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	6258	3921	2450	1550	1054	747	579	410	289
C90	9790	7666	6103	4728	3620	2858	2385	2140	2653
C180	5545	3452	2104	1315	875	645	477	344	239
C270	8783	6959	5509	4253	3227	2508	2027	1863	2439

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:



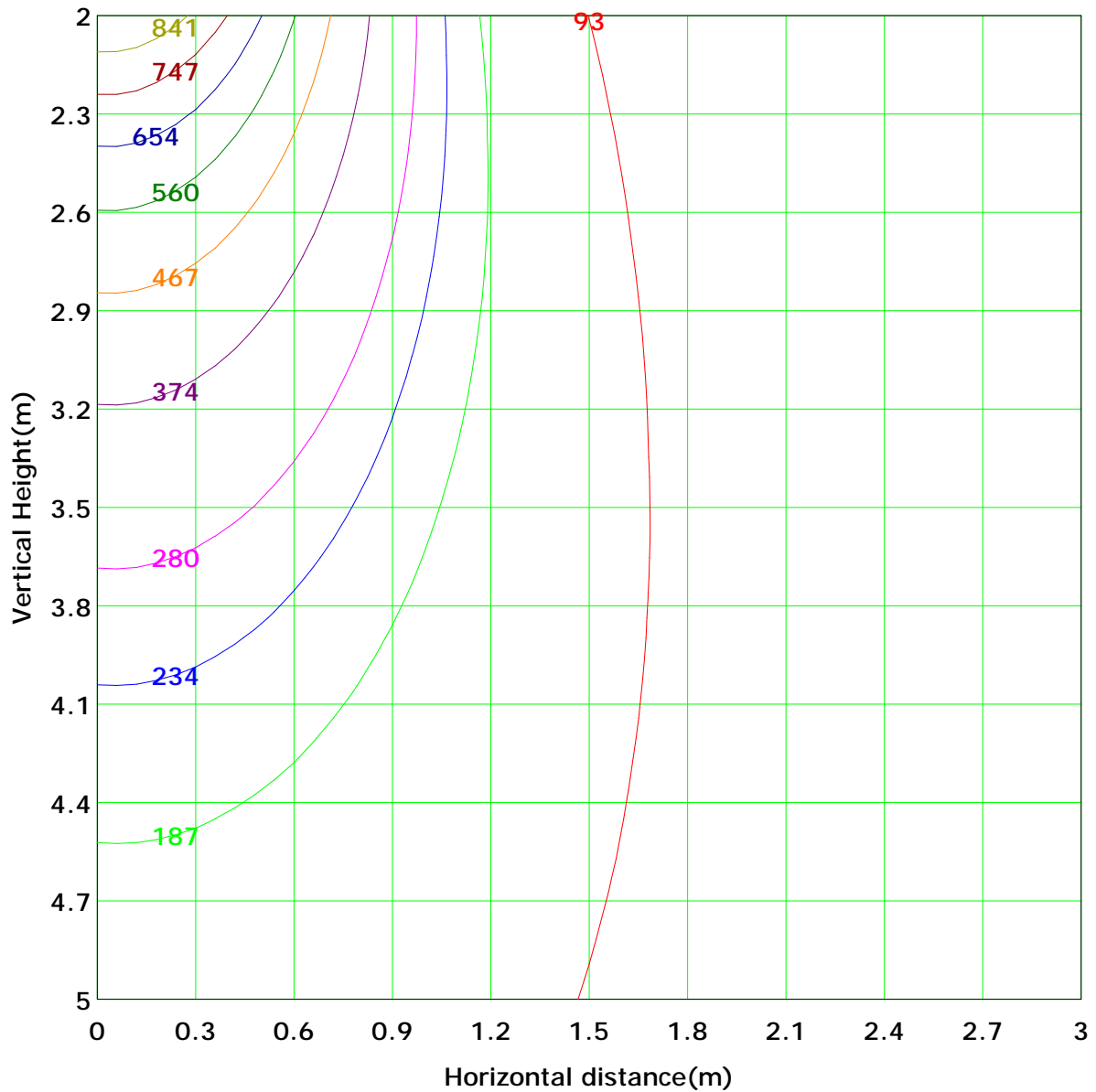
## Illuminance at a Distance



C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

Gamma Plane (°):0.0-180.0: 1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

## Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 934.1 lx
( 10%): 93.4 lx	( 20%): 186.8 lx	
( 25%): 233.5 lx	( 30%): 280.2 lx	
( 40%): 373.6 lx	( 50%): 467.0 lx	
( 60%): 560.4 lx	( 70%): 653.8 lx	
( 80%): 747.3 lx	( 90%): 840.7 lx	

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

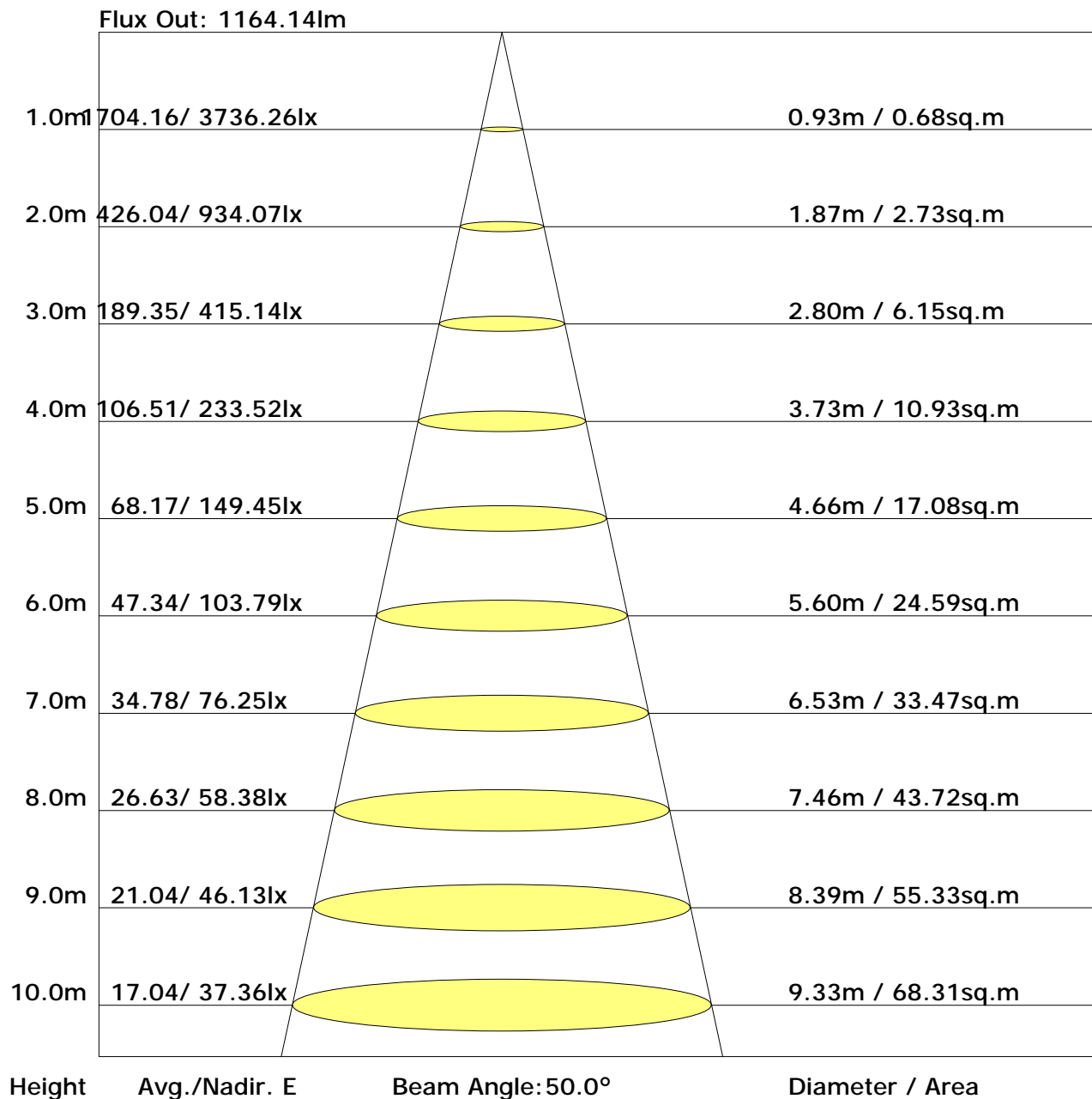
## Area Flux Table

Unit: lm

Flux(E)	Vertical plane																	Flux(T)		Flux(E)	
	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	Flux(T)	Flux(E)
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
0.0	0.0	0.1																			



## The Average Illuminance Effective Figure



C Plane (°): 0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

Gamma Plane (°): 0.0-180.0: 1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
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	9.1	10.2	9.6	10.6	11.0	7.4	8.5	7.9	8.9	9.3
3H	9.9	10.9	10.4	11.3	11.7	7.9	8.9	8.4	9.3	9.7
4H	10.3	11.2	10.8	11.6	12.1	8.0	8.9	8.5	9.3	9.8
6H	10.6	11.4	11.1	11.9	12.4	8.1	8.9	8.5	9.3	9.8
8H	10.8	11.5	11.3	12.0	12.5	8.1	8.8	8.6	9.3	9.8
12H	10.9	11.7	11.4	12.1	12.6	8.1	8.8	8.5	9.2	9.7
X=4H Y=2H	9.1	10.0	9.6	10.4	10.9	7.6	8.5	8.1	8.9	9.4
3H	10.0	10.7	10.5	11.2	11.7	8.2	8.9	8.7	9.4	9.9
4H	10.4	11.1	10.9	11.6	12.1	8.4	9.0	8.9	9.5	10.0
6H	10.8	11.4	11.4	11.9	12.4	8.5	9.0	9.0	9.5	10.1
8H	11.0	11.5	11.5	12.0	12.6	8.5	9.0	9.0	9.5	10.1
12H	11.2	11.7	11.8	12.2	12.8	8.5	8.9	9.0	9.5	10.0
X=8H Y=4H	10.3	10.9	10.9	11.4	11.9	8.4	8.9	8.9	9.4	10.0
6H	10.8	11.2	11.4	11.8	12.3	8.5	9.0	9.1	9.5	10.1
8H	11.0	11.4	11.6	12.0	12.5	8.6	9.0	9.2	9.5	10.1
12H	11.3	11.6	11.9	12.2	12.8	8.6	9.0	9.2	9.5	10.2
X=12H Y=4H	10.3	10.7	10.8	11.3	11.8	8.4	8.8	8.9	9.4	9.9
6H	10.7	11.1	11.3	11.6	12.3	8.5	8.9	9.1	9.4	10.1
8H	11.0	11.3	11.6	11.9	12.5	8.6	8.9	9.2	9.5	10.1

Calculate in accordance with CIE 190:2010

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
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	0.80	0.87	0.92	0.95	1.00	1.03	1.05	1.07	1.09
	0.30		0.75	0.82	0.87	0.91	0.96	0.99	1.02	1.05	1.07
	0.20		0.71	0.78	0.83	0.87	0.93	0.96	0.99	1.02	1.05
0.50	0.50	0.20	0.78	0.85	0.89	0.92	0.96	0.99	1.01	1.03	1.04
	0.30		0.74	0.81	0.85	0.88	0.93	0.96	0.98	1.01	1.03
	0.20		0.70	0.77	0.82	0.85	0.90	0.94	0.96	0.99	1.01
0.30	0.50	0.20	0.77	0.83	0.87	0.89	0.93	0.95	0.97	0.99	1.00
	0.30		0.73	0.79	0.83	0.86	0.90	0.93	0.95	0.97	0.99
	0.20		0.70	0.76	0.81	0.84	0.88	0.91	0.93	0.96	0.97
0.00	0.00	0.00	0.68	0.74	0.78	0.81	0.85	0.87	0.89	0.91	0.92
Rating: 33W 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 = 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	0.65	0.52	0.44	0.38	0.30	0.25	0.21	0.16	0.13	
	0.30		0.54	0.45	0.38	0.34	0.27	0.23	0.20	0.15	0.13	
	0.20		0.46	0.39	0.34	0.30	0.25	0.21	0.18	0.15	0.12	
0.50	0.50	0.20	0.61	0.49	0.41	0.35	0.28	0.27	0.19	0.15	0.12	
	0.30		0.52	0.43	0.36	0.32	0.25	0.21	0.18	0.14	0.12	
	0.20		0.45	0.38	0.33	0.29	0.23	0.20	0.17	0.14	0.11	
0.30	0.50	0.20	0.58	0.46	0.38	0.33	0.26	0.21	0.18	0.14	0.11	
	0.30		0.50	0.41	0.34	0.30	0.24	0.20	0.17	0.13	0.11	
	0.20		0.43	0.36	0.31	0.27	0.22	0.18	0.16	0.12	0.10	
0.00	0.00	0.00	0.30	0.24	0.20	0.17	0.13	0.11	0.09	0.07	0.06	
Rating: 33W 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 = 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	0.17	0.18	0.19	0.20	0.22	0.22	0.23	0.24	0.24
	0.30		0.12	0.14	0.16	0.17	0.19	0.20	0.21	0.22	0.23
	0.20		0.09	0.11	0.13	0.14	0.16	0.18	0.19	0.20	0.21
0.50	0.50	0.20	0.16	0.18	0.19	0.20	0.21	0.21	0.22	0.23	0.23
	0.30		0.12	0.14	0.15	0.16	0.18	0.19	0.20	0.21	0.22
	0.20		0.09	0.11	0.12	0.14	0.16	0.17	0.18	0.20	0.21
0.30	0.50	0.20	0.16	0.17	0.18	0.19	0.20	0.21	0.21	0.22	0.22
	0.30		0.12	0.14	0.15	0.16	0.17	0.19	0.19	0.20	0.21
	0.20		0.09	0.11	0.12	0.14	0.15	0.17	0.18	0.19	0.20
0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Rating: 33W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											

## Zonal Lumen

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	3707.1	3.5	3.5	0.17	0.17
1.0-2.0	3684.9	10.6	14.1	0.50	0.67
2.0-3.0	3641.0	17.4	31.5	0.83	1.49
3.0-4.0	3577.3	23.9	55.5	1.13	2.63
4.0-5.0	3495.4	30.1	85.6	1.43	4.06
5.0-6.0	3396.7	35.7	121.3	1.69	5.75
6.0-7.0	3284.0	40.8	162.0	1.93	7.68
7.0-8.0	3160.7	45.2	207.3	2.14	9.82
8.0-9.0	3029.4	49.1	256.4	2.33	12.15
9.0-10.0	2892.7	52.4	308.7	2.48	14.63
10.0-11.0	2752.4	55.0	363.7	2.61	17.24
11.0-12.0	2610.5	57.1	420.8	2.70	19.94
12.0-13.0	2470.3	58.6	479.4	2.78	22.72
13.0-14.0	2332.9	59.7	539.2	2.83	25.55
14.0-15.0	2195.9	60.3	599.5	2.86	28.41
15.0-16.0	2062.7	60.4	659.9	2.86	31.27
16.0-17.0	1935.7	60.3	720.2	2.86	34.13
17.0-18.0	1812.5	59.8	780.0	2.83	36.96
18.0-19.0	1694.2	59.0	838.9	2.79	39.76
19.0-20.0	1581.8	57.9	896.8	2.74	42.50
20.0-21.0	1474.4	56.6	953.4	2.68	45.18
21.0-22.0	1372.3	55.2	1008.6	2.61	47.80
22.0-23.0	1276.8	53.6	1062.2	2.54	50.34
23.0-24.0	1186.5	51.9	1114.1	2.46	52.80
24.0-25.0	1101.3	50.1	1164.1	2.37	55.17
25.0-26.0	1021.9	48.2	1212.4	2.29	57.46
26.0-27.0	947.6	46.4	1258.8	2.20	59.65
27.0-28.0	878.0	44.5	1303.2	2.11	61.76
28.0-29.0	813.2	42.6	1345.8	2.02	63.78
29.0-30.0	753.3	40.7	1386.4	1.93	65.71
30.0-31.0	697.1	38.8	1425.2	1.84	67.54
31.0-32.0	644.9	37.0	1462.2	1.75	69.30
32.0-33.0	596.7	35.2	1497.3	1.67	70.96
33.0-34.0	551.6	33.4	1530.7	1.58	72.54
34.0-35.0	509.9	31.7	1562.4	1.50	74.04
35.0-36.0	471.5	30.0	1592.4	1.42	75.47

C Plane (°): 0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 25  
 Operator: Jacky

Gamma Plane (°): 0.0-180.0: 1.0  
 Test Device: GPM-1800B  
 Distance: 9.028 m  
 Humidity: 60%  
 Inspector:

## Zonal Lumen (Continue 1)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	435.9	28.4	1620.9	1.35	76.82
37.0-38.0	402.8	26.9	1647.8	1.27	78.09
38.0-39.0	372.3	25.4	1673.2	1.20	79.29
39.0-40.0	344.1	24.0	1697.2	1.14	80.43
40.0-41.0	317.9	22.6	1719.8	1.07	81.50
41.0-42.0	293.9	21.4	1741.2	1.01	82.52
42.0-43.0	271.7	20.1	1761.3	0.95	83.47
43.0-44.0	251.1	19.0	1780.2	0.90	84.37
44.0-45.0	232.1	17.8	1798.1	0.85	85.21
45.0-46.0	214.6	16.8	1814.9	0.80	86.01
46.0-47.0	198.4	15.8	1830.7	0.75	86.76
47.0-48.0	183.3	14.8	1845.5	0.70	87.46
48.0-49.0	169.5	13.9	1859.4	0.66	88.12
49.0-50.0	156.7	13.1	1872.5	0.62	88.74
50.0-51.0	144.6	12.2	1884.7	0.58	89.32
51.0-52.0	133.6	11.5	1896.2	0.54	89.86
52.0-53.0	123.4	10.7	1906.9	0.51	90.37
53.0-54.0	113.7	10.0	1916.9	0.47	90.85
54.0-55.0	104.7	9.3	1926.3	0.44	91.29
55.0-56.0	96.4	8.7	1935.0	0.41	91.70
56.0-57.0	88.6	8.1	1943.1	0.38	92.09
57.0-58.0	81.4	7.5	1950.6	0.36	92.44
58.0-59.0	74.8	7.0	1957.6	0.33	92.77
59.0-60.0	68.6	6.5	1964.1	0.31	93.08
60.0-61.0	62.9	6.0	1970.1	0.28	93.37
61.0-62.0	57.7	5.6	1975.7	0.26	93.63
62.0-63.0	52.9	5.1	1980.8	0.24	93.87
63.0-64.0	48.5	4.8	1985.6	0.23	94.10
64.0-65.0	44.6	4.4	1990.0	0.21	94.31
65.0-66.0	41.0	4.1	1994.1	0.19	94.50
66.0-67.0	37.6	3.8	1997.9	0.18	94.68
67.0-68.0	34.6	3.5	2001.4	0.17	94.85
68.0-69.0	31.9	3.3	2004.6	0.15	95.00
69.0-70.0	29.4	3.0	2007.6	0.14	95.14
70.0-71.0	27.1	2.8	2010.4	0.13	95.28
71.0-72.0	25.0	2.6	2013.0	0.12	95.40

C Plane (°): 0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 25  
 Operator: Jacky

Gamma Plane (°): 0.0-180.0: 1.0  
 Test Device: GPM-1800B  
 Distance: 9.028 m  
 Humidity: 60%  
 Inspector:

## Zonal Lumen (Continue 2)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
72.0-73.0	23.0	2.4	2015.4	0.11	95.51
73.0-74.0	21.2	2.2	2017.7	0.11	95.62
74.0-75.0	19.5	2.1	2019.7	0.10	95.72
75.0-76.0	17.9	1.9	2021.6	0.09	95.81
76.0-77.0	16.5	1.8	2023.4	0.08	95.89
77.0-78.0	15.1	1.6	2025.0	0.08	95.97
78.0-79.0	13.9	1.5	2026.5	0.07	96.04
79.0-80.0	12.8	1.4	2027.9	0.07	96.10
80.0-81.0	11.9	1.3	2029.1	0.06	96.16
81.0-82.0	11.0	1.2	2030.3	0.06	96.22
82.0-83.0	10.3	1.1	2031.5	0.05	96.27
83.0-84.0	9.8	1.1	2032.5	0.05	96.32
84.0-85.0	9.3	1.0	2033.5	0.05	96.37
85.0-86.0	8.9	1.0	2034.5	0.05	96.42
86.0-87.0	8.6	0.9	2035.5	0.04	96.46
87.0-88.0	8.5	0.9	2036.4	0.04	96.51
88.0-89.0	8.4	0.9	2037.3	0.04	96.55
89.0-90.0	8.3	0.9	2038.2	0.04	96.59
90.0-91.0	8.3	0.9	2039.1	0.04	96.64
91.0-92.0	8.3	0.9	2040.0	0.04	96.68
92.0-93.0	8.3	0.9	2040.9	0.04	96.72
93.0-94.0	8.3	0.9	2041.9	0.04	96.77
94.0-95.0	8.4	0.9	2042.8	0.04	96.81
95.0-96.0	8.4	0.9	2043.7	0.04	96.85
96.0-97.0	8.4	0.9	2044.6	0.04	96.90
97.0-98.0	8.4	0.9	2045.5	0.04	96.94
98.0-99.0	8.4	0.9	2046.4	0.04	96.98
99.0-100.0	8.4	0.9	2047.3	0.04	97.03
100.0-101.0	8.5	0.9	2048.3	0.04	97.07
101.0-102.0	8.5	0.9	2049.2	0.04	97.11
102.0-103.0	8.6	0.9	2050.1	0.04	97.16
103.0-104.0	8.6	0.9	2051.0	0.04	97.20
104.0-105.0	8.7	0.9	2051.9	0.04	97.24
105.0-106.0	8.7	0.9	2052.9	0.04	97.29
106.0-107.0	8.8	0.9	2053.8	0.04	97.33
107.0-108.0	8.8	0.9	2054.7	0.04	97.38

C Plane (°): 0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 25  
 Operator: Jacky

Gamma Plane (°): 0.0-180.0: 1.0  
 Test Device: GPM-1800B  
 Distance: 9.028 m  
 Humidity: 60%  
 Inspector:

## Zonal Lumen (Continue 3)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
108.0-109.0	8.9	0.9	2055.6	0.04	97.42
109.0-110.0	9.0	0.9	2056.5	0.04	97.46
110.0-111.0	9.0	0.9	2057.5	0.04	97.51
111.0-112.0	9.1	0.9	2058.4	0.04	97.55
112.0-113.0	9.2	0.9	2059.3	0.04	97.60
113.0-114.0	9.3	0.9	2060.3	0.04	97.64
114.0-115.0	9.4	0.9	2061.2	0.04	97.68
115.0-116.0	9.5	0.9	2062.1	0.04	97.73
116.0-117.0	9.5	0.9	2063.1	0.04	97.77
117.0-118.0	9.6	0.9	2064.0	0.04	97.82
118.0-119.0	9.7	0.9	2064.9	0.04	97.86
119.0-120.0	9.8	0.9	2065.9	0.04	97.91
120.0-121.0	9.9	0.9	2066.8	0.04	97.95
121.0-122.0	10.1	0.9	2067.8	0.04	97.99
122.0-123.0	10.2	0.9	2068.7	0.04	98.04
123.0-124.0	10.4	0.9	2069.7	0.04	98.08
124.0-125.0	10.5	0.9	2070.6	0.04	98.13
125.0-126.0	10.7	1.0	2071.6	0.05	98.17
126.0-127.0	10.9	1.0	2072.5	0.05	98.22
127.0-128.0	11.0	1.0	2073.5	0.05	98.27
128.0-129.0	11.2	1.0	2074.4	0.05	98.31
129.0-130.0	11.4	1.0	2075.4	0.05	98.36
130.0-131.0	11.6	1.0	2076.4	0.05	98.40
131.0-132.0	11.8	1.0	2077.3	0.05	98.45
132.0-133.0	12.0	1.0	2078.3	0.05	98.49
133.0-134.0	12.2	1.0	2079.3	0.05	98.54
134.0-135.0	12.4	1.0	2080.2	0.05	98.59
135.0-136.0	12.7	1.0	2081.2	0.05	98.63
136.0-137.0	12.9	1.0	2082.2	0.05	98.68
137.0-138.0	13.1	1.0	2083.1	0.05	98.72
138.0-139.0	13.3	1.0	2084.1	0.05	98.77
139.0-140.0	13.6	1.0	2085.1	0.05	98.82
140.0-141.0	13.9	1.0	2086.1	0.05	98.86
141.0-142.0	14.1	1.0	2087.0	0.05	98.91
142.0-143.0	14.4	1.0	2088.0	0.05	98.95
143.0-144.0	14.7	1.0	2088.9	0.05	99.00

C Plane (°): 0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 25  
 Operator: Jacky

Gamma Plane (°): 0.0-180.0: 1.0  
 Test Device: GPM-1800B  
 Distance: 9.028 m  
 Humidity: 60%  
 Inspector:

## Zonal Lumen (Continue 4)

Gamma [°]	I <sub>mean</sub> [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
144.0-145.0	14.9	1.0	2089.9	0.05	99.04
145.0-146.0	15.2	0.9	2090.8	0.04	99.09
146.0-147.0	15.5	0.9	2091.8	0.04	99.13
147.0-148.0	15.8	0.9	2092.7	0.04	99.18
148.0-149.0	16.1	0.9	2093.6	0.04	99.22
149.0-150.0	16.3	0.9	2094.5	0.04	99.26
150.0-151.0	16.5	0.9	2095.4	0.04	99.31
151.0-152.0	16.8	0.9	2096.3	0.04	99.35
152.0-153.0	17.0	0.9	2097.2	0.04	99.39
153.0-154.0	17.3	0.8	2098.0	0.04	99.43
154.0-155.0	17.5	0.8	2098.8	0.04	99.47
155.0-156.0	17.8	0.8	2099.6	0.04	99.51
156.0-157.0	18.0	0.8	2100.4	0.04	99.54
157.0-158.0	18.2	0.8	2101.2	0.04	99.58
158.0-159.0	18.4	0.7	2101.9	0.04	99.61
159.0-160.0	18.6	0.7	2102.6	0.03	99.65
160.0-161.0	18.8	0.7	2103.3	0.03	99.68
161.0-162.0	18.9	0.7	2104.0	0.03	99.71
162.0-163.0	19.1	0.6	2104.6	0.03	99.74
163.0-164.0	19.3	0.6	2105.2	0.03	99.77
164.0-165.0	19.4	0.6	2105.8	0.03	99.80
165.0-166.0	19.6	0.5	2106.3	0.03	99.82
166.0-167.0	19.7	0.5	2106.8	0.02	99.85
167.0-168.0	19.8	0.5	2107.3	0.02	99.87
168.0-169.0	19.9	0.4	2107.7	0.02	99.89
169.0-170.0	20.0	0.4	2108.1	0.02	99.91
170.0-171.0	20.1	0.4	2108.5	0.02	99.93
171.0-172.0	20.2	0.3	2108.8	0.02	99.94
172.0-173.0	20.3	0.3	2109.1	0.01	99.95
173.0-174.0	20.4	0.3	2109.4	0.01	99.97
174.0-175.0	20.4	0.2	2109.6	0.01	99.98
175.0-176.0	20.5	0.2	2109.8	0.01	99.99
176.0-177.0	20.6	0.1	2109.9	0.01	99.99
177.0-178.0	20.6	0.1	2110.0	0.00	100.00
178.0-179.0	20.6	0.1	2110.1	0.00	100.00
179.0-180.0	20.7	0.0	2110.1	0.00	100.00

C Plane (°): 0.0-360.0: 30.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature: 25  
 Operator: Jacky

Gamma Plane (°): 0.0-180.0: 1.0  
 Test Device: GPM-1800B  
 Distance: 9.028 m  
 Humidity: 60%  
 Inspector: