

Report No.:

Test Time: 2023/2/21 13:55

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category: 大炮

Lamp Catalog: R

Luminous Width (mm): 70

Voltage: 219.4 V

Power: 6.96 W

Luminaire Description: YML40°+3M

Luminous Length (mm): 270

Luminous Height (mm): 20

Current: 0.080 A

Power Factor: 0.395

## Photometric Results

CIE Class: Direct

Measurement Flux: 289.6 lm

Downward Ratio: 96%

Horizontal Diffuse Angle(10%,50%): H84.5,H42.1

Vertical Diffuse Angle(10%,50%): V80.4,V42.5

Luminaire Efficacy Rating (LER): 42

Max. Intensity: 403.59 cd

Total Rated Lamp Lumens: 289.6 lm

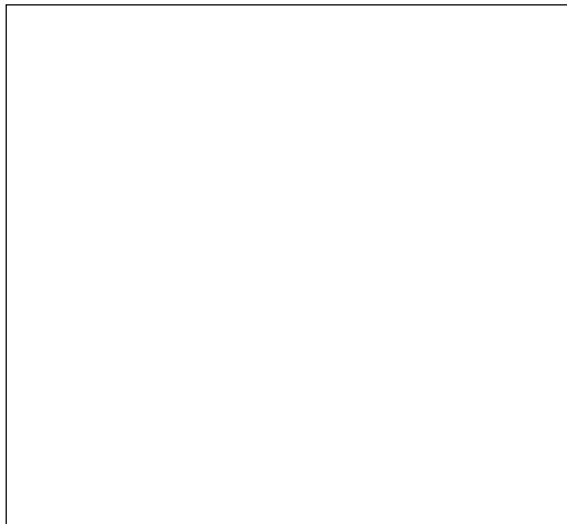
Efficiency: 100%

Upward Ratio: 4%

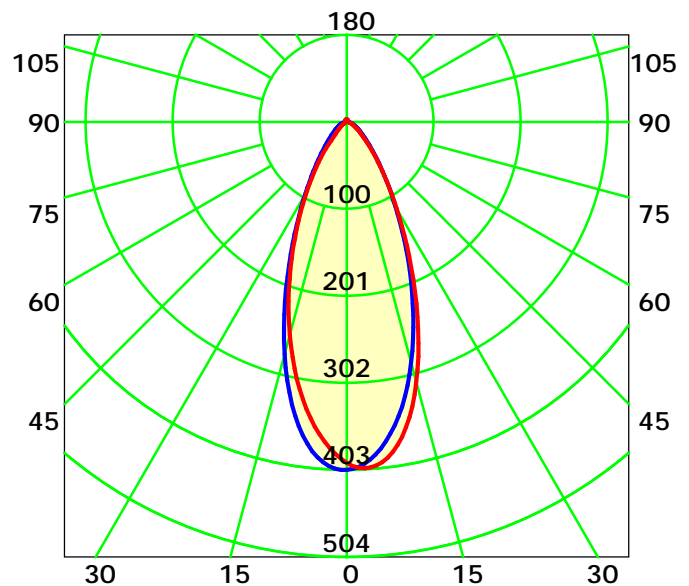
Central Intensity: 403.59 cd

Pos of Max. Intensity: H0 V0

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 42.3° Unit: cd

— 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

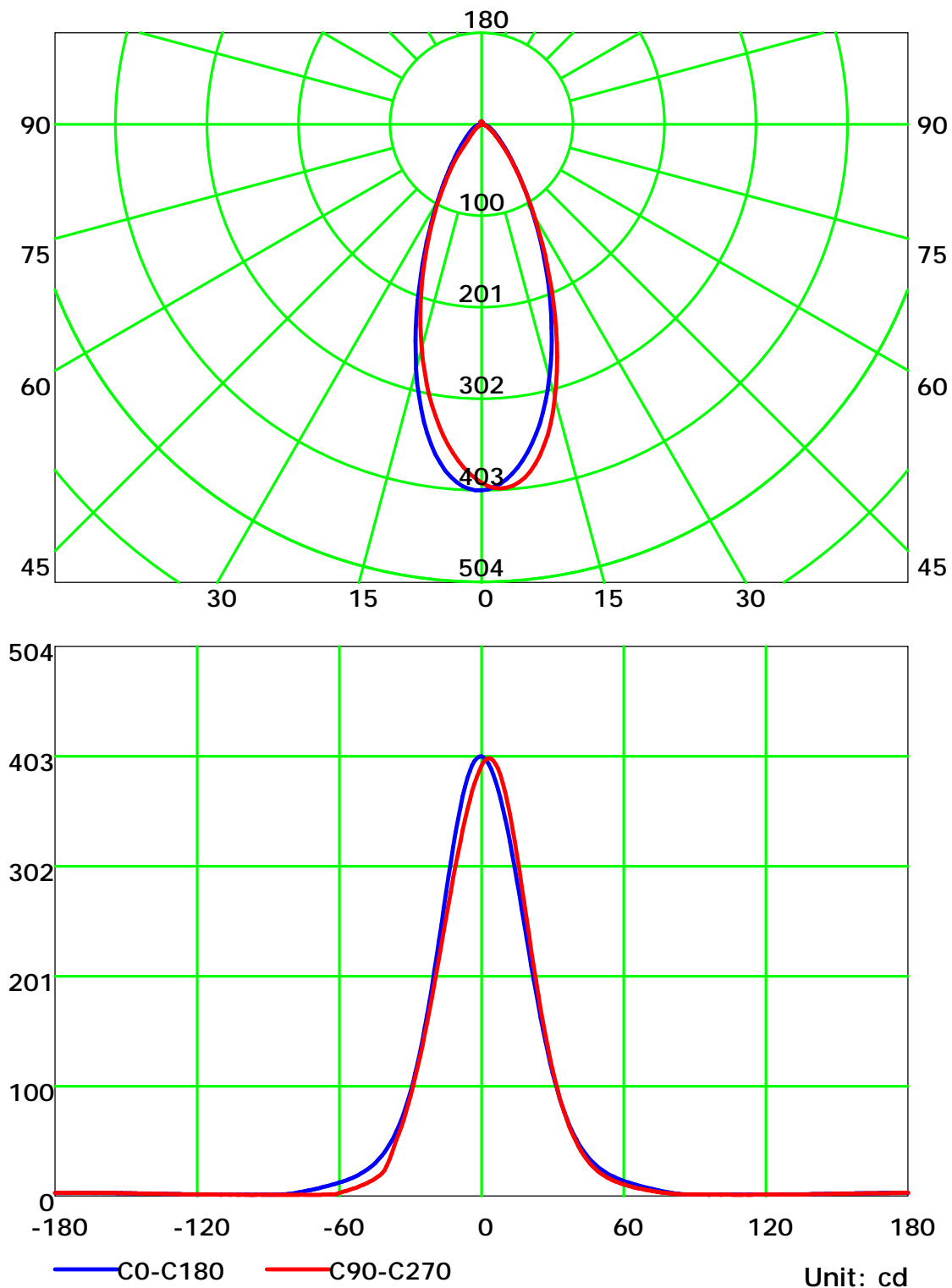
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

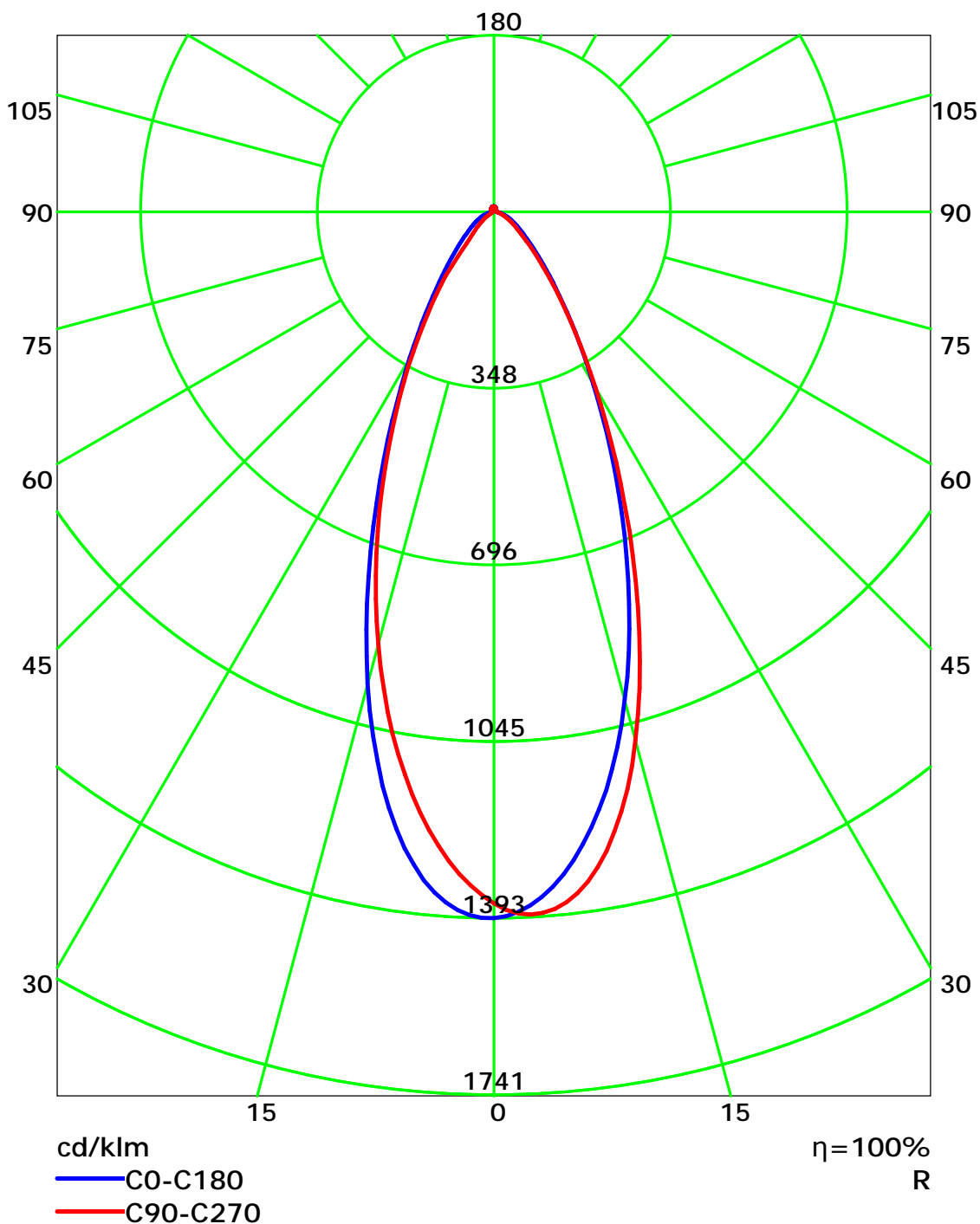
## Luminous Intensity Distribution Curve



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:

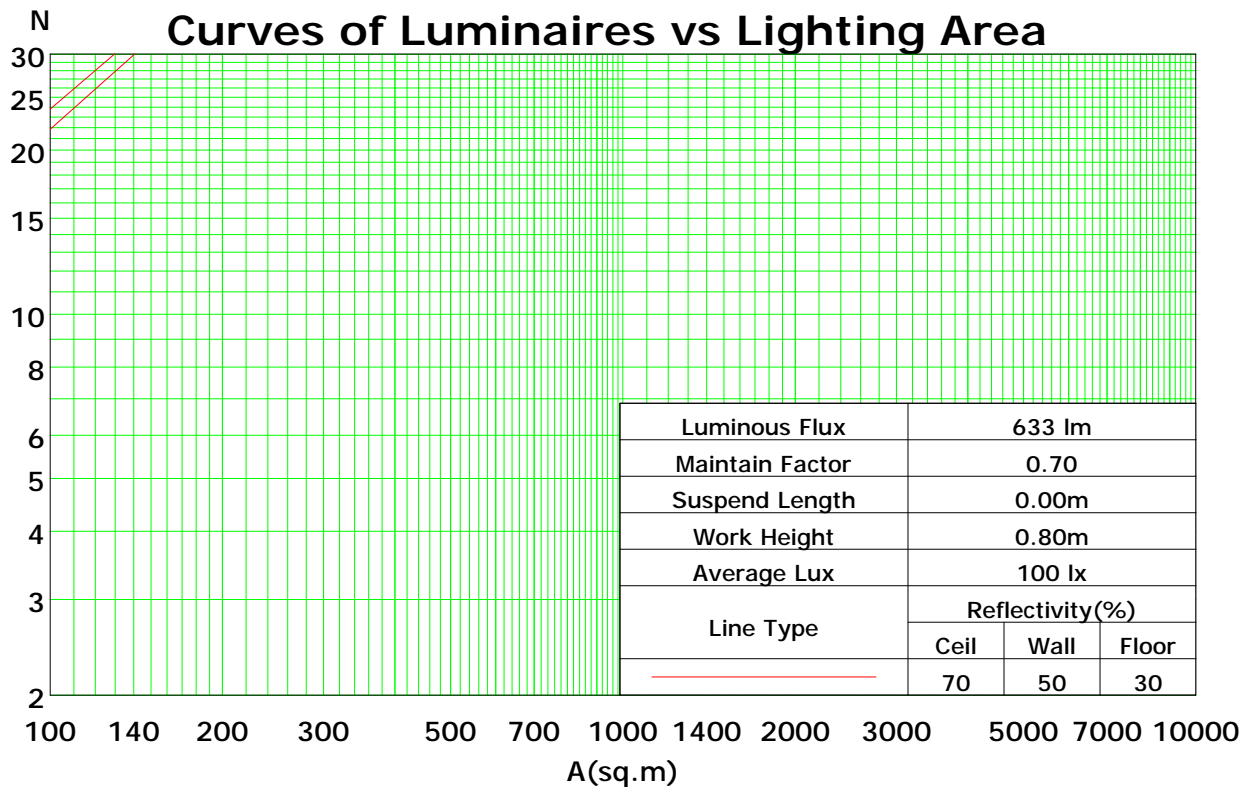
## Coefficients Of Utilization - Zonal Cavity Method

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	103	103	103	98	98	98	96
1	112	108	106	103	109	106	103	101	101	99	97	96	95	93	92	91	90	88
2	105	100	95	92	103	98	94	90	94	90	88	90	87	85	87	84	83	81
3	99	92	87	83	97	91	86	82	87	83	80	84	81	78	81	79	76	74
4	94	86	80	75	92	84	79	75	82	77	73	79	75	72	77	73	71	69
5	89	80	74	69	87	79	73	69	76	71	68	74	70	67	72	69	66	64
6	84	75	69	64	83	74	68	64	72	67	63	70	66	62	68	64	61	60
7	80	70	64	60	79	70	64	59	68	63	59	66	62	58	65	61	57	56
8	76	66	60	56	75	66	60	56	64	59	55	63	58	55	61	57	54	53
9	73	63	57	52	71	62	56	52	61	56	52	60	55	51	58	54	51	50
10	69	59	53	49	68	59	53	49	58	53	49	57	52	49	56	51	48	47

Spacing Criteria (0-180): 0.67

Spacing Criteria (90-270): 0.68

Spacing Criteria (Diagonal): 0.70



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

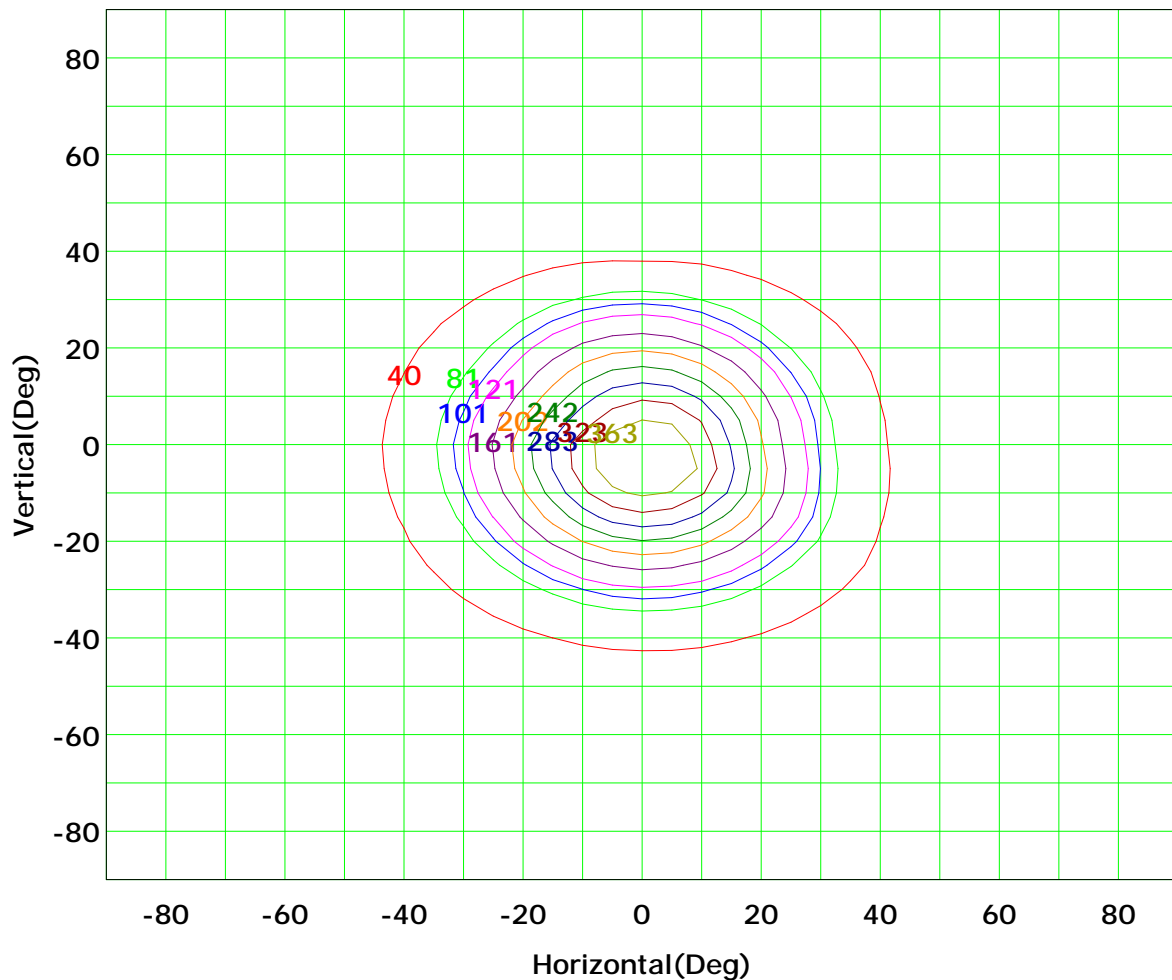
Distance: 9.028 m

Humidity: 60%

Inspector:



## Isocandela (rectangle)



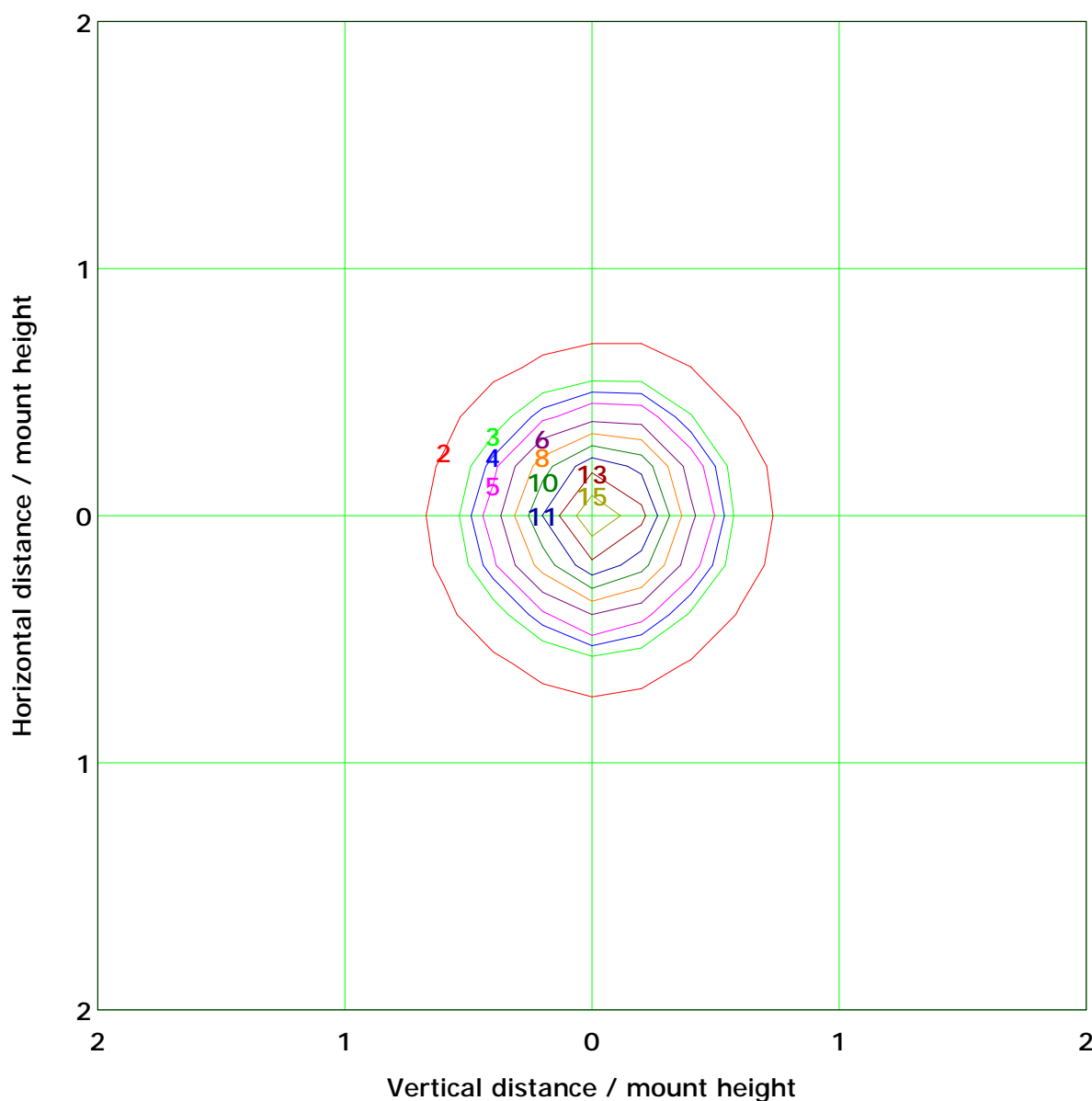
I<sub>max</sub> (100%): 404 cd

( 10%): 40 cd	( 20%): 81 cd
( 25%): 101 cd	( 30%): 121 cd
( 40%): 161 cd	( 50%): 202 cd
( 60%): 242 cd	( 70%): 283 cd
( 80%): 323 cd	( 90%): 363 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%): 16.1 lx	
( 10%):	1.6 lx	( 20%):	3.2 lx
( 25%):	4.0 lx	( 30%):	4.8 lx
( 40%):	6.5 lx	( 50%):	8.1 lx
( 60%):	9.7 lx	( 70%):	11.3 lx
( 80%):	12.9 lx	( 90%):	14.5 lx

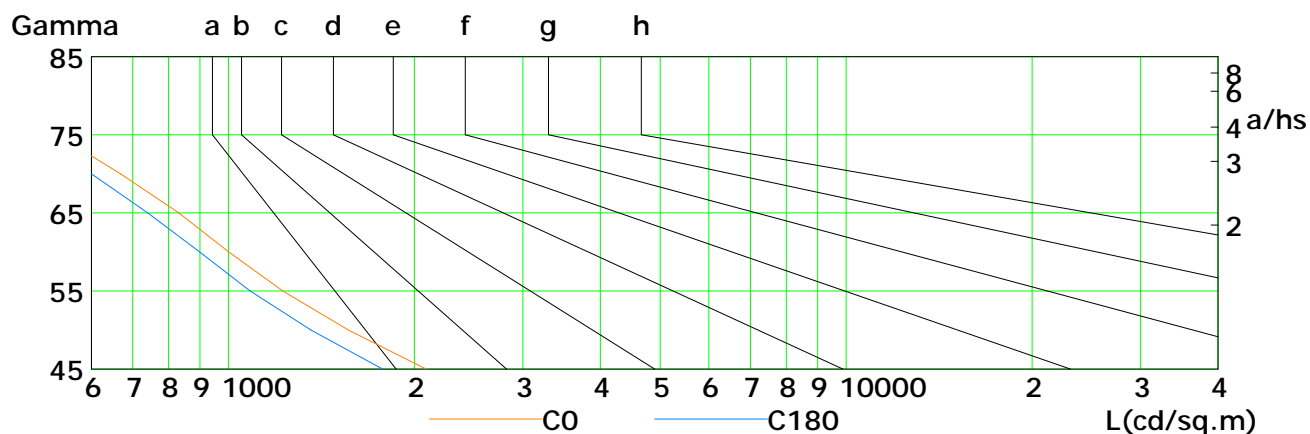
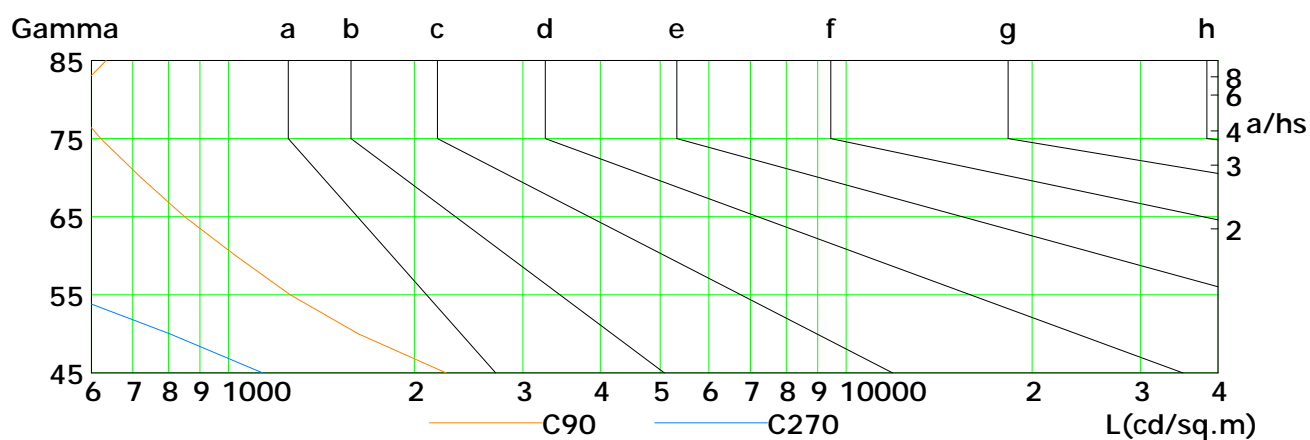
C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

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

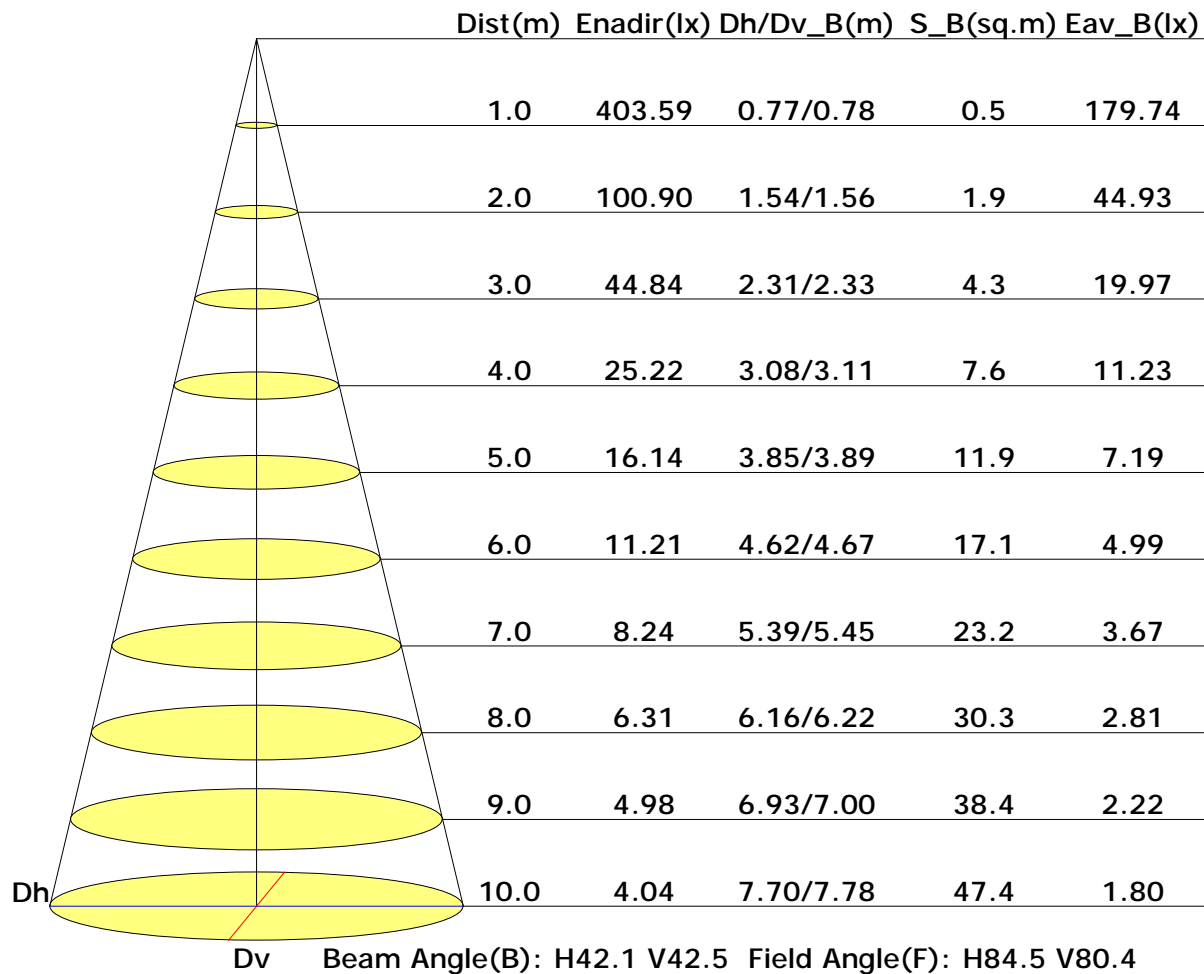


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	2091	1565	1226	1002	831	669	529	381	269
C90	2251	1624	1260	1028	849	722	621	549	634
C180	1779	1361	1085	899	741	600	443	309	235
C270	1136	804	549	287	171	183	229	307	470

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

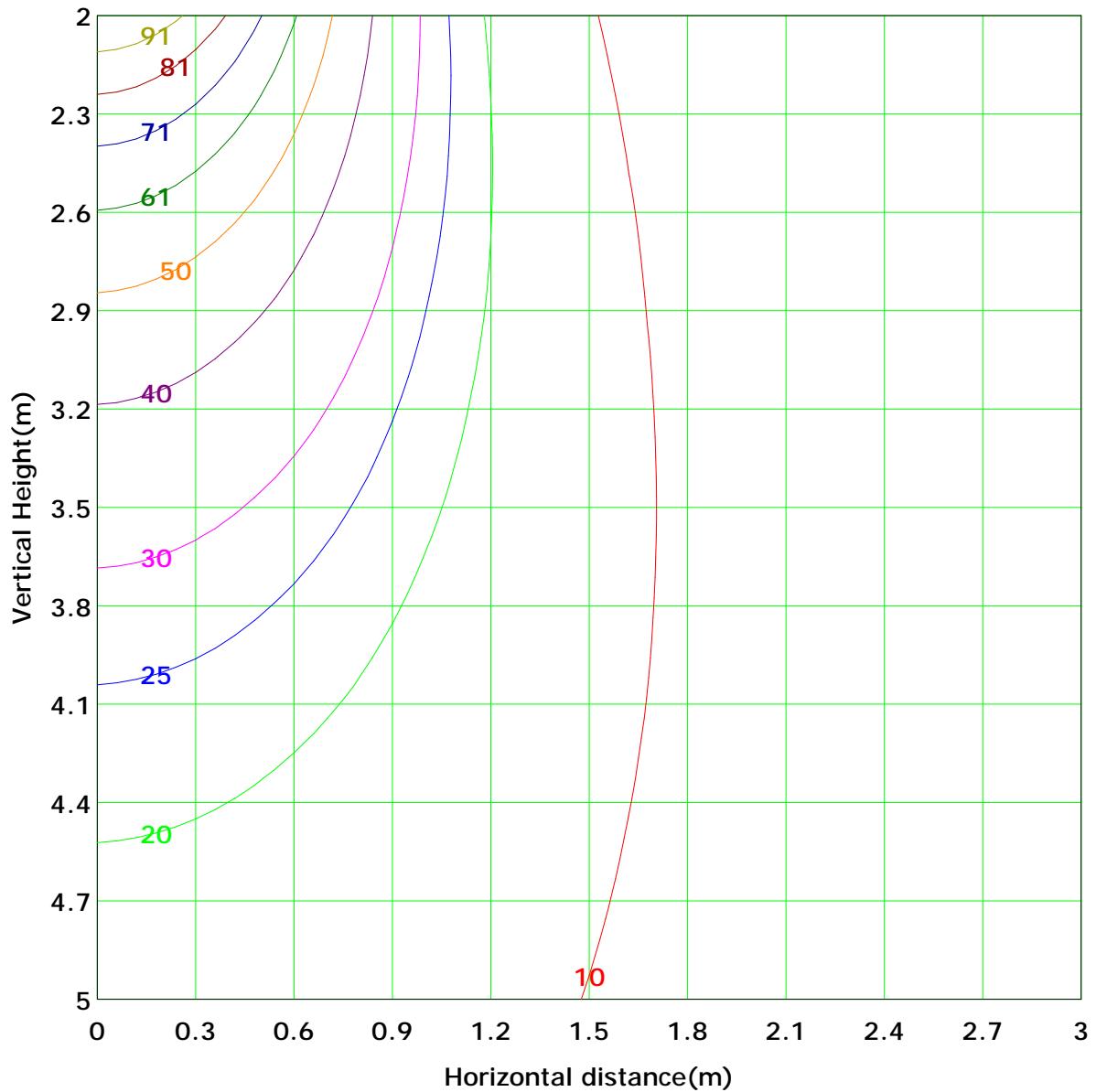
Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:

## Illuminance at a Distance





## Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 100.9 lx
( 10%): 10.1 lx	( 20%): 20.2 lx	
( 25%): 25.2 lx	( 30%): 30.3 lx	
( 40%): 40.4 lx	( 50%): 50.4 lx	
( 60%): 60.5 lx	( 70%): 70.6 lx	
( 80%): 80.7 lx	( 90%): 90.8 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

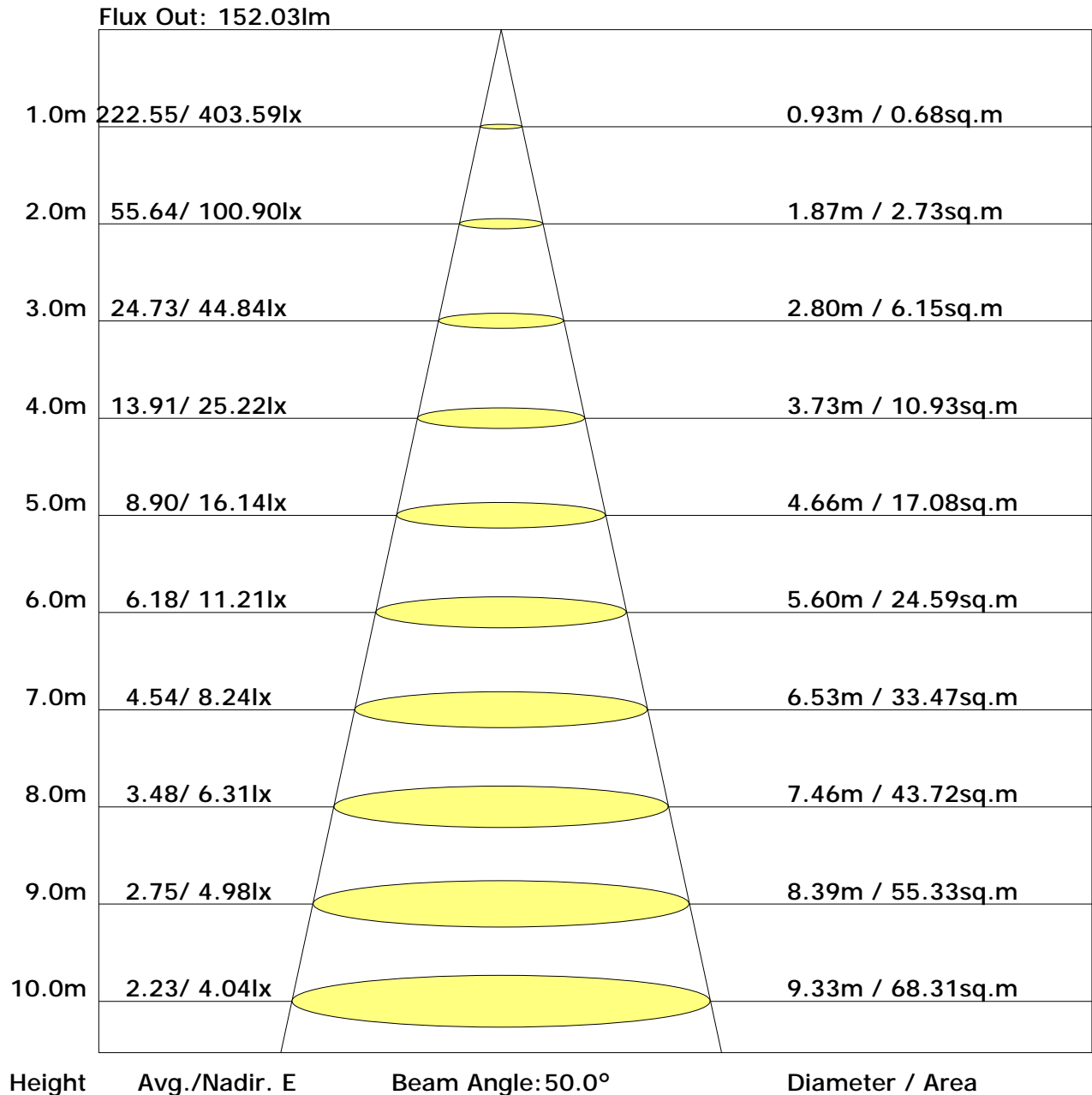
		Vertical plane																		Flux(T)		Flux(E)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80					90																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Horizontal plane	-90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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:



## 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	13.1	14.1	13.5	14.5	15.0	12.0	13.1	12.5	13.5	13.9
3H	14.4	15.3	14.8	15.7	16.2	13.0	13.9	13.4	14.3	14.8
4H	14.9	15.7	15.3	16.2	16.7	13.3	14.2	13.8	14.6	15.1
6H	15.2	16.0	15.7	16.5	17.0	13.5	14.3	14.0	14.7	15.2
8H	15.3	16.1	15.8	16.5	17.1	13.5	14.3	14.0	14.8	15.3
12H	15.4	16.1	15.9	16.6	17.1	13.6	14.3	14.1	14.8	15.3
X=4H Y=2H	13.1	14.0	13.6	14.4	14.9	12.5	13.4	13.0	13.8	14.3
3H	14.6	15.3	15.1	15.8	16.3	13.6	14.3	14.1	14.8	15.3
4H	15.1	15.8	15.6	16.3	16.8	14.0	14.6	14.5	15.1	15.7
6H	15.6	16.1	16.1	16.7	17.2	14.3	14.8	14.8	15.3	15.9
8H	15.7	16.3	16.3	16.8	17.4	14.4	14.9	14.9	15.4	16.0
12H	15.9	16.3	16.5	16.9	17.5	14.5	14.9	15.0	15.5	16.0
X=8H Y=4H	15.1	15.6	15.6	16.1	16.7	14.2	14.7	14.7	15.2	15.8
6H	15.6	16.0	16.2	16.6	17.2	14.5	15.0	15.1	15.5	16.1
8H	15.8	16.2	16.4	16.8	17.4	14.7	15.1	15.3	15.7	16.3
12H	16.1	16.4	16.7	17.0	17.7	14.9	15.2	15.5	15.8	16.5
X=12H Y=4H	15.1	15.5	15.6	16.1	16.7	14.2	14.6	14.7	15.2	15.8
6H	15.6	16.0	16.2	16.5	17.2	14.6	15.0	15.2	15.5	16.1
8H	15.8	16.2	16.4	16.7	17.4	14.8	15.1	15.4	15.7	16.4

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	0.78	0.85	0.90	0.93	0.98	1.01	1.03	1.06	1.08
	0.30		0.72	0.80	0.85	0.89	0.94	0.97	1.00	1.03	1.06
	0.20		0.68	0.76	0.81	0.85	0.91	0.94	0.97	1.01	1.03
0.50	0.50	0.20	0.76	0.83	0.87	0.90	0.94	0.97	0.99	1.01	1.03
	0.30		0.71	0.78	0.83	0.86	0.91	0.94	0.96	0.99	1.01
	0.20		0.68	0.75	0.80	0.83	0.88	0.92	0.94	0.97	0.99
0.30	0.50	0.20	0.74	0.80	0.85	0.87	0.91	0.93	0.95	0.97	0.98
	0.30		0.70	0.77	0.81	0.84	0.88	0.91	0.93	0.96	0.97
	0.20		0.67	0.74	0.78	0.82	0.86	0.89	0.91	0.94	0.96
0.00	0.00	0.00	0.65	0.71	0.75	0.78	0.82	0.85	0.87	0.89	0.90
Rating: 7W 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	0.67	0.54	0.46	0.40	0.31	0.26	0.22	0.17	0.14
	0.30		0.56	0.47	0.40	0.35	0.28	0.24	0.21	0.16	0.13
	0.20		0.48	0.41	0.35	0.31	0.26	0.22	0.19	0.15	0.13
0.50	0.50	0.20	0.63	0.51	0.43	0.37	0.29	0.28	0.20	0.16	0.13
	0.30		0.53	0.44	0.38	0.33	0.26	0.22	0.19	0.15	0.12
	0.20		0.46	0.39	0.34	0.30	0.24	0.21	0.18	0.14	0.12
0.30	0.50	0.20	0.60	0.48	0.40	0.34	0.27	0.22	0.19	0.14	0.12
	0.30		0.51	0.42	0.36	0.31	0.25	0.21	0.18	0.14	0.11
	0.20		0.45	0.37	0.32	0.28	0.23	0.19	0.17	0.13	0.11
0.00	0.00	0.00	0.31	0.25	0.21	0.18	0.14	0.12	0.10	0.08	0.06
Rating: 7W 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	0.18	0.19	0.20	0.21	0.22	0.23	0.24	0.25	0.25
	0.30		0.13	0.15	0.17	0.18	0.19	0.21	0.21	0.23	0.24
	0.20		0.10	0.12	0.13	0.15	0.17	0.18	0.19	0.21	0.22
0.50	0.50	0.20	0.17	0.19	0.20	0.20	0.22	0.22	0.23	0.24	0.24
	0.30		0.13	0.15	0.16	0.17	0.19	0.20	0.21	0.22	0.23
	0.20		0.10	0.12	0.13	0.15	0.16	0.18	0.19	0.20	0.21
0.30	0.50	0.20	0.17	0.18	0.19	0.20	0.21	0.22	0.22	0.23	0.23
	0.30		0.13	0.14	0.16	0.17	0.18	0.19	0.20	0.21	0.22
	0.20		0.10	0.12	0.13	0.14	0.16	0.17	0.18	0.20	0.21
0.00	0.00	0.00	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Rating: 7W 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	397.6	0.4	0.4	0.13	0.13
1.0-2.0	396.5	1.1	1.5	0.39	0.52
2.0-3.0	394.2	1.9	3.4	0.65	1.18
3.0-4.0	390.9	2.6	6.0	0.90	2.08
4.0-5.0	386.5	3.3	9.3	1.15	3.23
5.0-6.0	381.0	4.0	13.4	1.38	4.61
6.0-7.0	374.4	4.6	18.0	1.60	6.21
7.0-8.0	366.9	5.3	23.3	1.81	8.03
8.0-9.0	358.4	5.8	29.1	2.01	10.03
9.0-10.0	348.9	6.3	35.4	2.18	12.21
10.0-11.0	338.7	6.8	42.1	2.34	14.55
11.0-12.0	327.6	7.2	49.3	2.47	17.02
12.0-13.0	315.8	7.5	56.8	2.59	19.61
13.0-14.0	303.5	7.8	64.6	2.68	22.29
14.0-15.0	290.6	8.0	72.5	2.75	25.05
15.0-16.0	277.3	8.1	80.7	2.81	27.85
16.0-17.0	264.0	8.2	88.9	2.84	30.69
17.0-18.0	250.3	8.3	97.2	2.85	33.54
18.0-19.0	236.7	8.2	105.4	2.84	36.39
19.0-20.0	223.1	8.2	113.6	2.82	39.21
20.0-21.0	209.8	8.1	121.6	2.78	41.99
21.0-22.0	196.8	7.9	129.5	2.73	44.72
22.0-23.0	184.1	7.7	137.2	2.67	47.39
23.0-24.0	171.8	7.5	144.8	2.59	49.98
24.0-25.0	159.9	7.3	152.0	2.51	52.49
25.0-26.0	148.6	7.0	159.0	2.42	54.91
26.0-27.0	137.9	6.7	165.8	2.33	57.24
27.0-28.0	127.7	6.5	172.3	2.23	59.47
28.0-29.0	118.1	6.2	178.4	2.13	61.61
29.0-30.0	109.1	5.9	184.3	2.03	63.64
30.0-31.0	100.7	5.6	189.9	1.93	65.58
31.0-32.0	92.7	5.3	195.2	1.83	67.41
32.0-33.0	85.4	5.0	200.3	1.74	69.15
33.0-34.0	78.6	4.8	205.0	1.64	70.79
34.0-35.0	72.2	4.5	209.5	1.55	72.34
35.0-36.0	66.4	4.2	213.8	1.46	73.80

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	61.0	4.0	217.7	1.37	75.17
37.0-38.0	55.9	3.7	221.5	1.29	76.46
38.0-39.0	51.1	3.5	224.9	1.21	77.67
39.0-40.0	46.8	3.3	228.2	1.13	78.79
40.0-41.0	42.9	3.1	231.3	1.05	79.85
41.0-42.0	39.2	2.9	234.1	0.98	80.83
42.0-43.0	36.0	2.7	236.8	0.92	81.75
43.0-44.0	33.0	2.5	239.3	0.86	82.61
44.0-45.0	30.4	2.3	241.6	0.81	83.42
45.0-46.0	28.0	2.2	243.8	0.76	84.18
46.0-47.0	25.9	2.1	245.9	0.71	84.89
47.0-48.0	24.0	1.9	247.8	0.67	85.55
48.0-49.0	22.3	1.8	249.6	0.63	86.19
49.0-50.0	20.7	1.7	251.4	0.60	86.78
50.0-51.0	19.3	1.6	253.0	0.56	87.35
51.0-52.0	18.0	1.5	254.5	0.53	87.88
52.0-53.0	16.7	1.5	256.0	0.50	88.38
53.0-54.0	15.6	1.4	257.4	0.48	88.86
54.0-55.0	14.6	1.3	258.7	0.45	89.31
55.0-56.0	13.6	1.2	259.9	0.43	89.73
56.0-57.0	12.7	1.2	261.1	0.40	90.13
57.0-58.0	11.9	1.1	262.2	0.38	90.51
58.0-59.0	11.1	1.0	263.2	0.36	90.87
59.0-60.0	10.3	1.0	264.2	0.34	91.21
60.0-61.0	9.6	0.9	265.1	0.32	91.52
61.0-62.0	9.0	0.9	265.9	0.30	91.82
62.0-63.0	8.4	0.8	266.8	0.28	92.10
63.0-64.0	7.8	0.8	267.5	0.26	92.37
64.0-65.0	7.3	0.7	268.2	0.25	92.61
65.0-66.0	6.8	0.7	268.9	0.23	92.85
66.0-67.0	6.4	0.6	269.6	0.22	93.07
67.0-68.0	6.0	0.6	270.2	0.21	93.28
68.0-69.0	5.6	0.6	270.7	0.20	93.48
69.0-70.0	5.2	0.5	271.3	0.19	93.66
70.0-71.0	4.9	0.5	271.8	0.17	93.84
71.0-72.0	4.5	0.5	272.3	0.16	94.00

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 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	4.2	0.4	272.7	0.15	94.15
73.0-74.0	3.9	0.4	273.1	0.14	94.30
74.0-75.0	3.6	0.4	273.5	0.13	94.43
75.0-76.0	3.4	0.4	273.9	0.12	94.55
76.0-77.0	3.1	0.3	274.2	0.12	94.67
77.0-78.0	2.9	0.3	274.5	0.11	94.77
78.0-79.0	2.7	0.3	274.8	0.10	94.87
79.0-80.0	2.5	0.3	275.1	0.09	94.96
80.0-81.0	2.3	0.3	275.3	0.09	95.05
81.0-82.0	2.2	0.2	275.5	0.08	95.13
82.0-83.0	2.0	0.2	275.8	0.08	95.21
83.0-84.0	1.9	0.2	276.0	0.07	95.28
84.0-85.0	1.8	0.2	276.2	0.07	95.35
85.0-86.0	1.7	0.2	276.4	0.07	95.41
86.0-87.0	1.7	0.2	276.5	0.06	95.48
87.0-88.0	1.7	0.2	276.7	0.06	95.54
88.0-89.0	1.7	0.2	276.9	0.06	95.60
89.0-90.0	1.7	0.2	277.1	0.06	95.67
90.0-91.0	1.7	0.2	277.3	0.06	95.73
91.0-92.0	1.7	0.2	277.4	0.06	95.79
92.0-93.0	1.6	0.2	277.6	0.06	95.85
93.0-94.0	1.6	0.2	277.8	0.06	95.92
94.0-95.0	1.7	0.2	278.0	0.06	95.98
95.0-96.0	1.6	0.2	278.2	0.06	96.04
96.0-97.0	1.6	0.2	278.3	0.06	96.10
97.0-98.0	1.6	0.2	278.5	0.06	96.16
98.0-99.0	1.6	0.2	278.7	0.06	96.22
99.0-100.0	1.6	0.2	278.9	0.06	96.28
100.0-101.0	1.6	0.2	279.0	0.06	96.34
101.0-102.0	1.6	0.2	279.2	0.06	96.40
102.0-103.0	1.6	0.2	279.4	0.06	96.46
103.0-104.0	1.6	0.2	279.6	0.06	96.52
104.0-105.0	1.6	0.2	279.7	0.06	96.58
105.0-106.0	1.6	0.2	279.9	0.06	96.64
106.0-107.0	1.6	0.2	280.1	0.06	96.70
107.0-108.0	1.6	0.2	280.2	0.06	96.76

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	1.6	0.2	280.4	0.06	96.81
109.0-110.0	1.6	0.2	280.6	0.06	96.87
110.0-111.0	1.6	0.2	280.7	0.06	96.93
111.0-112.0	1.6	0.2	280.9	0.06	96.99
112.0-113.0	1.7	0.2	281.1	0.06	97.05
113.0-114.0	1.7	0.2	281.2	0.06	97.10
114.0-115.0	1.7	0.2	281.4	0.06	97.16
115.0-116.0	1.7	0.2	281.6	0.06	97.22
116.0-117.0	1.7	0.2	281.8	0.06	97.28
117.0-118.0	1.7	0.2	281.9	0.06	97.34
118.0-119.0	1.8	0.2	282.1	0.06	97.40
119.0-120.0	1.8	0.2	282.3	0.06	97.45
120.0-121.0	1.8	0.2	282.4	0.06	97.51
121.0-122.0	1.8	0.2	282.6	0.06	97.57
122.0-123.0	1.8	0.2	282.8	0.06	97.63
123.0-124.0	1.8	0.2	282.9	0.06	97.69
124.0-125.0	1.8	0.2	283.1	0.06	97.74
125.0-126.0	1.8	0.2	283.3	0.06	97.80
126.0-127.0	1.9	0.2	283.4	0.06	97.86
127.0-128.0	1.9	0.2	283.6	0.06	97.91
128.0-129.0	1.9	0.2	283.8	0.06	97.97
129.0-130.0	2.0	0.2	283.9	0.06	98.03
130.0-131.0	2.0	0.2	284.1	0.06	98.09
131.0-132.0	2.0	0.2	284.3	0.06	98.14
132.0-133.0	2.1	0.2	284.4	0.06	98.20
133.0-134.0	2.1	0.2	284.6	0.06	98.26
134.0-135.0	2.1	0.2	284.8	0.06	98.32
135.0-136.0	2.1	0.2	284.9	0.06	98.37
136.0-137.0	2.2	0.2	285.1	0.06	98.43
137.0-138.0	2.2	0.2	285.3	0.06	98.49
138.0-139.0	2.2	0.2	285.4	0.06	98.54
139.0-140.0	2.3	0.2	285.6	0.06	98.60
140.0-141.0	2.3	0.2	285.7	0.06	98.66
141.0-142.0	2.4	0.2	285.9	0.06	98.71
142.0-143.0	2.4	0.2	286.1	0.06	98.77
143.0-144.0	2.4	0.2	286.2	0.05	98.82

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	2.5	0.2	286.4	0.05	98.88
145.0-146.0	2.5	0.2	286.5	0.05	98.93
146.0-147.0	2.5	0.2	286.7	0.05	98.98
147.0-148.0	2.6	0.2	286.8	0.05	99.04
148.0-149.0	2.6	0.2	287.0	0.05	99.09
149.0-150.0	2.7	0.1	287.1	0.05	99.14
150.0-151.0	2.7	0.1	287.3	0.05	99.19
151.0-152.0	2.7	0.1	287.4	0.05	99.24
152.0-153.0	2.8	0.1	287.6	0.05	99.29
153.0-154.0	2.8	0.1	287.7	0.05	99.33
154.0-155.0	2.8	0.1	287.8	0.05	99.38
155.0-156.0	2.9	0.1	288.0	0.05	99.42
156.0-157.0	2.9	0.1	288.1	0.04	99.47
157.0-158.0	2.9	0.1	288.2	0.04	99.51
158.0-159.0	3.0	0.1	288.3	0.04	99.55
159.0-160.0	3.0	0.1	288.5	0.04	99.59
160.0-161.0	3.0	0.1	288.6	0.04	99.63
161.0-162.0	3.0	0.1	288.7	0.04	99.67
162.0-163.0	3.1	0.1	288.8	0.03	99.70
163.0-164.0	3.1	0.1	288.9	0.03	99.73
164.0-165.0	3.1	0.1	289.0	0.03	99.76
165.0-166.0	3.1	0.1	289.0	0.03	99.79
166.0-167.0	3.1	0.1	289.1	0.03	99.82
167.0-168.0	3.1	0.1	289.2	0.03	99.85
168.0-169.0	3.2	0.1	289.3	0.02	99.87
169.0-170.0	3.2	0.1	289.3	0.02	99.89
170.0-171.0	3.2	0.1	289.4	0.02	99.91
171.0-172.0	3.2	0.1	289.4	0.02	99.93
172.0-173.0	3.2	0.0	289.5	0.02	99.95
173.0-174.0	3.2	0.0	289.5	0.01	99.96
174.0-175.0	3.2	0.0	289.6	0.01	99.97
175.0-176.0	3.2	0.0	289.6	0.01	99.98
176.0-177.0	3.3	0.0	289.6	0.01	99.99
177.0-178.0	3.3	0.0	289.6	0.01	100.00
178.0-179.0	3.3	0.0	289.6	0.00	100.00
179.0-180.0	3.3	0.0	289.6	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: