

Report No.:

Test Time: 2023/2/20 16:13

## Luminaire Property

Luminaire Manufacturer: ACOLYTE

Luminaire Category: WALL WASHER

Luminaire Description: FORTEACNS12RGBW4020-BLUE ON

Luminous Length (mm): 330

Luminous Width (mm): 96

Luminous Height (mm): 162.5

Voltage: 219.3 V

Current: 0.107 A

Power: 9.61 W

Power Factor: 0.410

## Photometric Results

CIE Class: Direct

Measurement Flux: 158 lm

Downward Ratio: 93%

Horizontal Diffuse Angle(10%,50%): H54.7,H21.5

Vertical Diffuse Angle(10%,50%): V53.3,V20.8

Luminaire Efficacy Rating (LER): 16

Max. Intensity: 503.58 cd

Total Rated Lamp Lumens: 158.0 lm

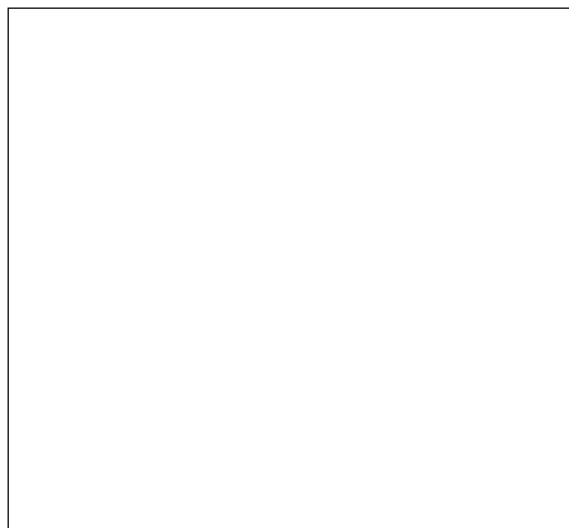
Efficiency: 100%

Upward Ratio: 7%

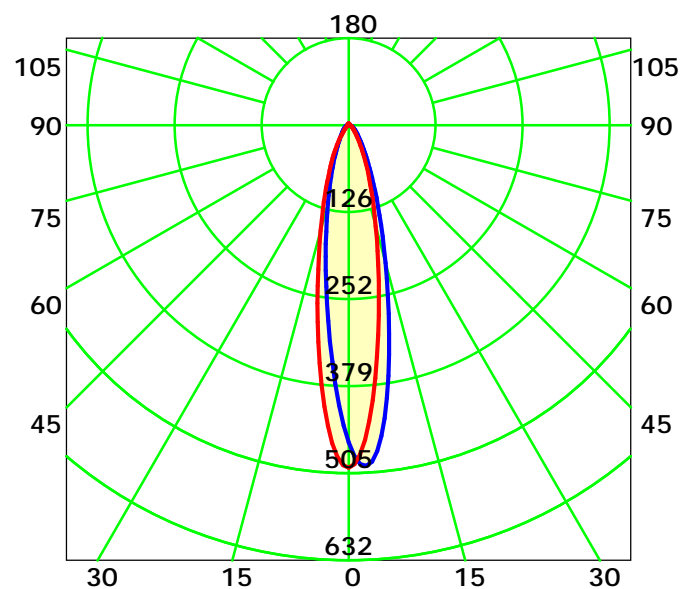
Central Intensity: 460.9 cd

Pos of Max. Intensity: H300 V1

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 21.1° 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

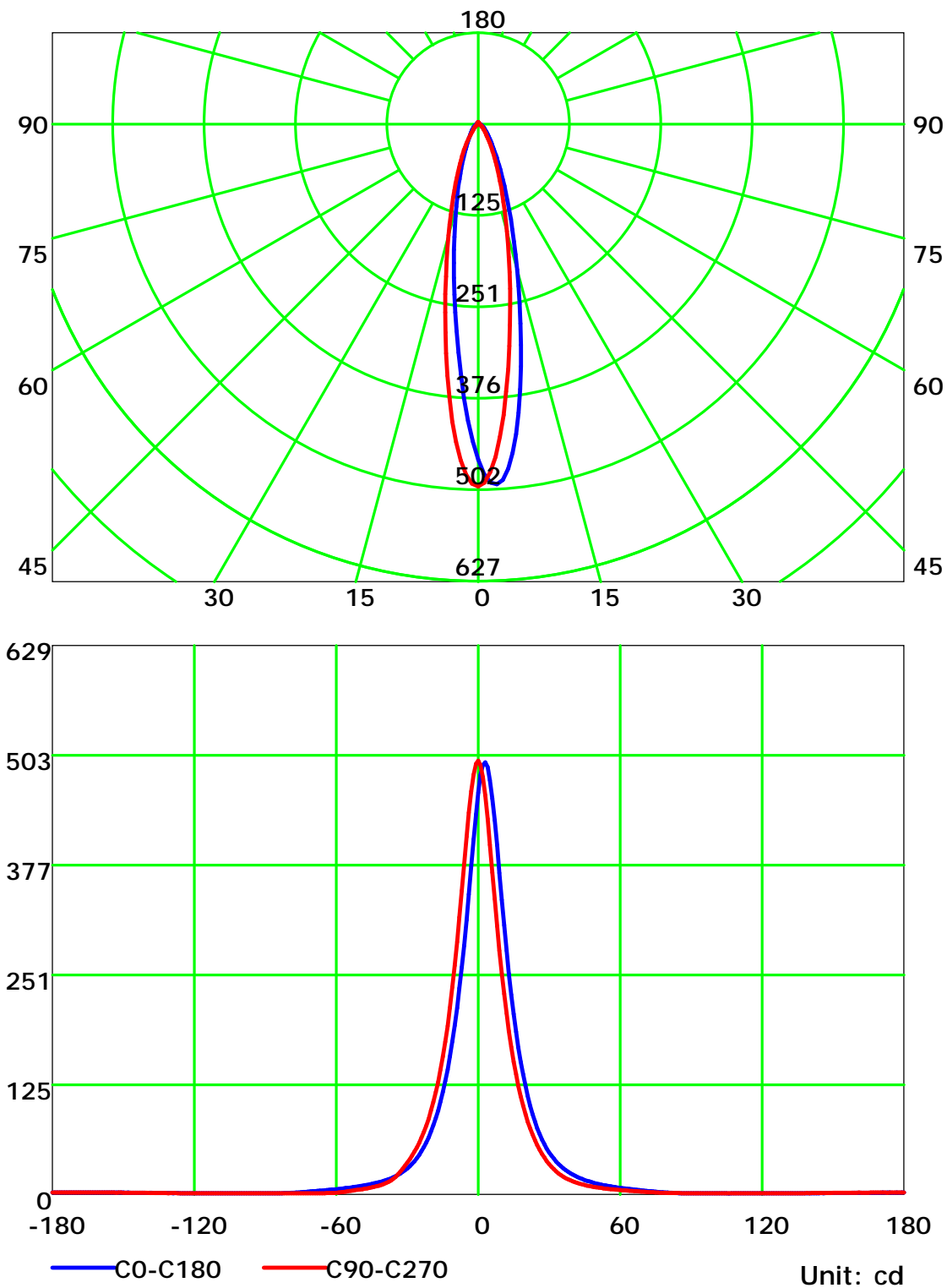
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

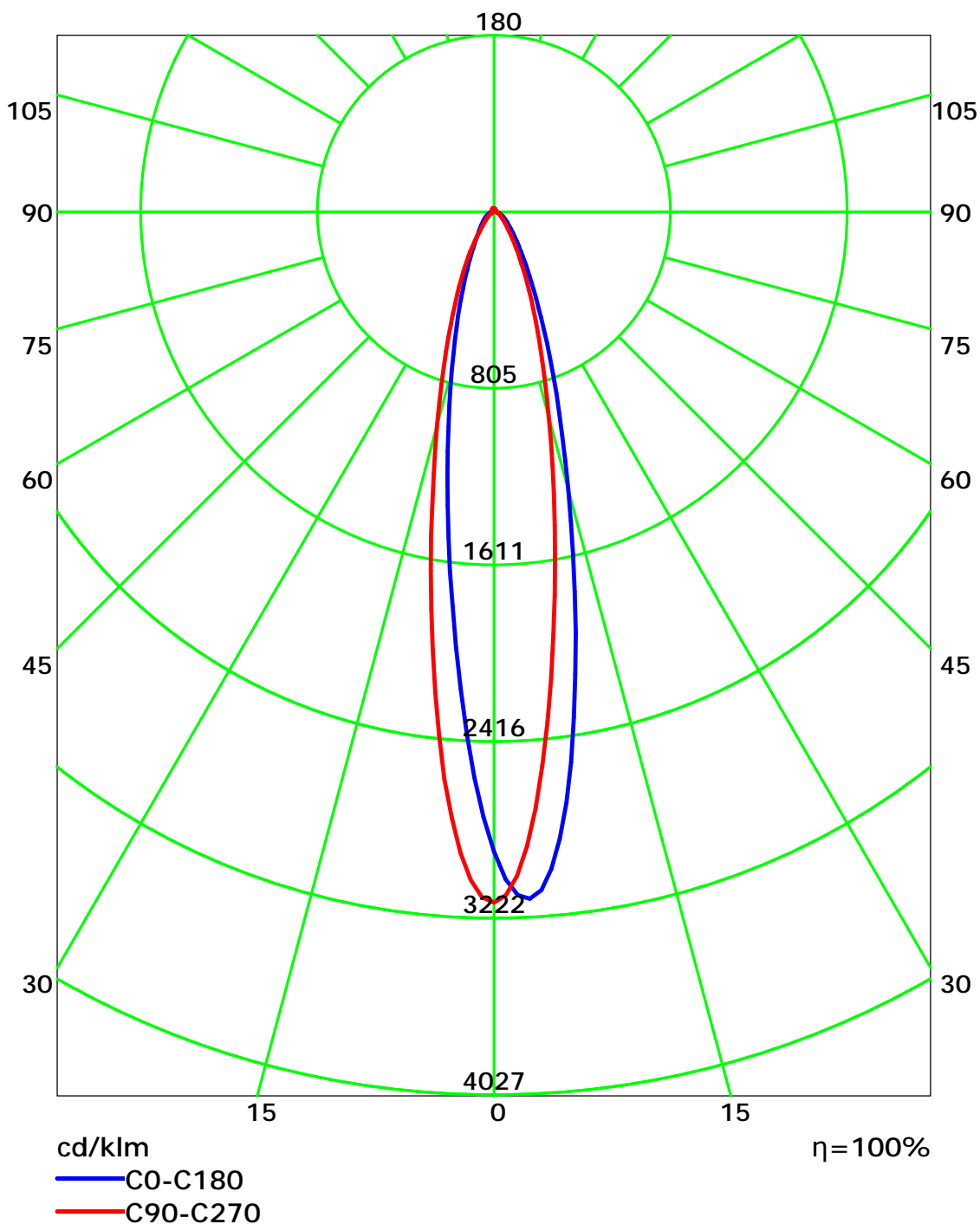
## Luminous Intensity Distribution Curve



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:

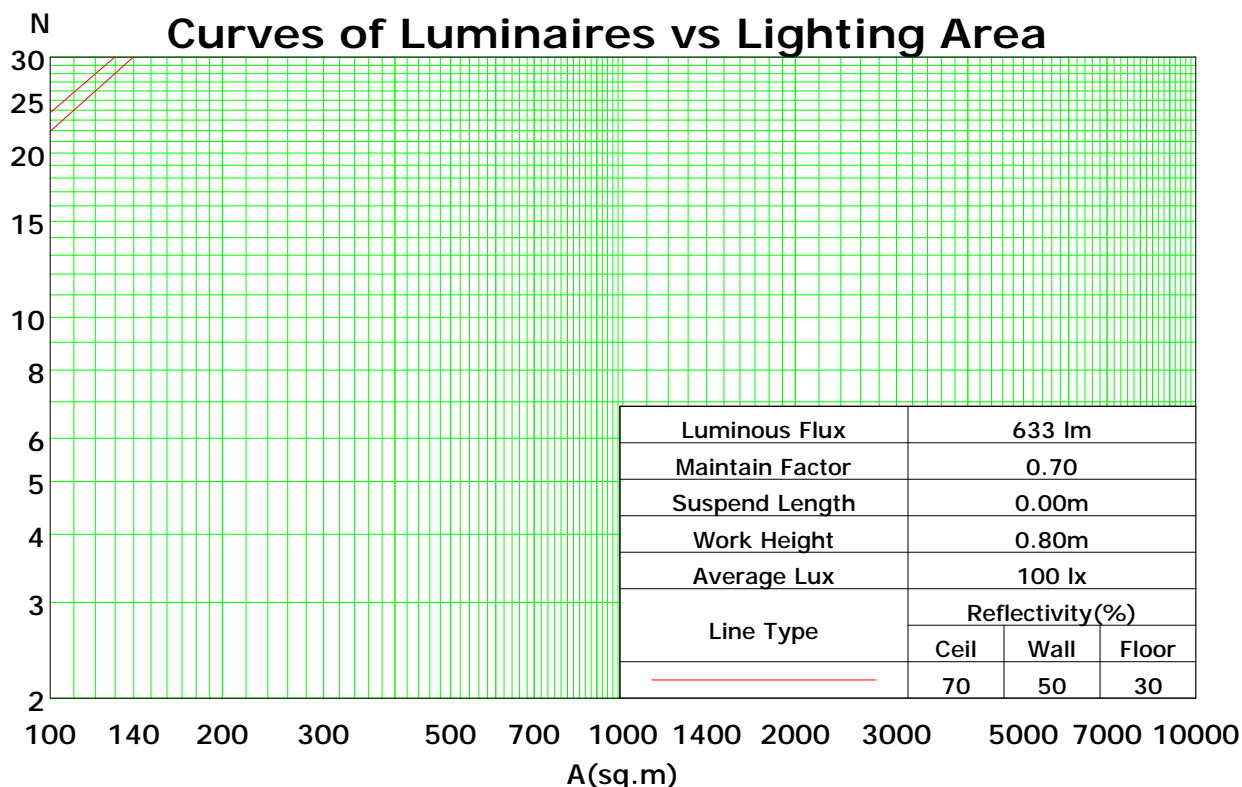
## Coefficients Of Utilization - Zonal Cavity Method

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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	93
1	111	108	105	102	108	105	102	100	99	97	96	94	93	91	90	89	87	85
2	105	100	95	92	102	97	93	90	93	90	87	89	86	84	85	83	81	79
3	100	93	88	83	97	91	86	82	87	83	80	84	80	78	80	78	76	74
4	95	87	81	77	92	85	80	76	82	78	74	79	76	73	77	74	71	69
5	90	82	76	72	88	80	75	71	78	73	70	75	71	68	73	70	67	65
6	86	77	71	67	84	76	71	67	74	69	66	72	68	65	70	66	64	62
7	82	73	67	63	81	72	67	63	70	66	62	69	64	61	67	63	60	59
8	79	70	64	60	77	69	64	60	67	62	59	66	61	58	64	61	58	56
9	76	67	61	57	74	66	61	57	64	60	56	63	59	56	62	58	55	54
10	73	64	58	55	72	63	58	54	62	57	54	61	56	54	60	56	53	52

Spacing Criteria (0-180): 0.39

Spacing Criteria (90-270): 0.35

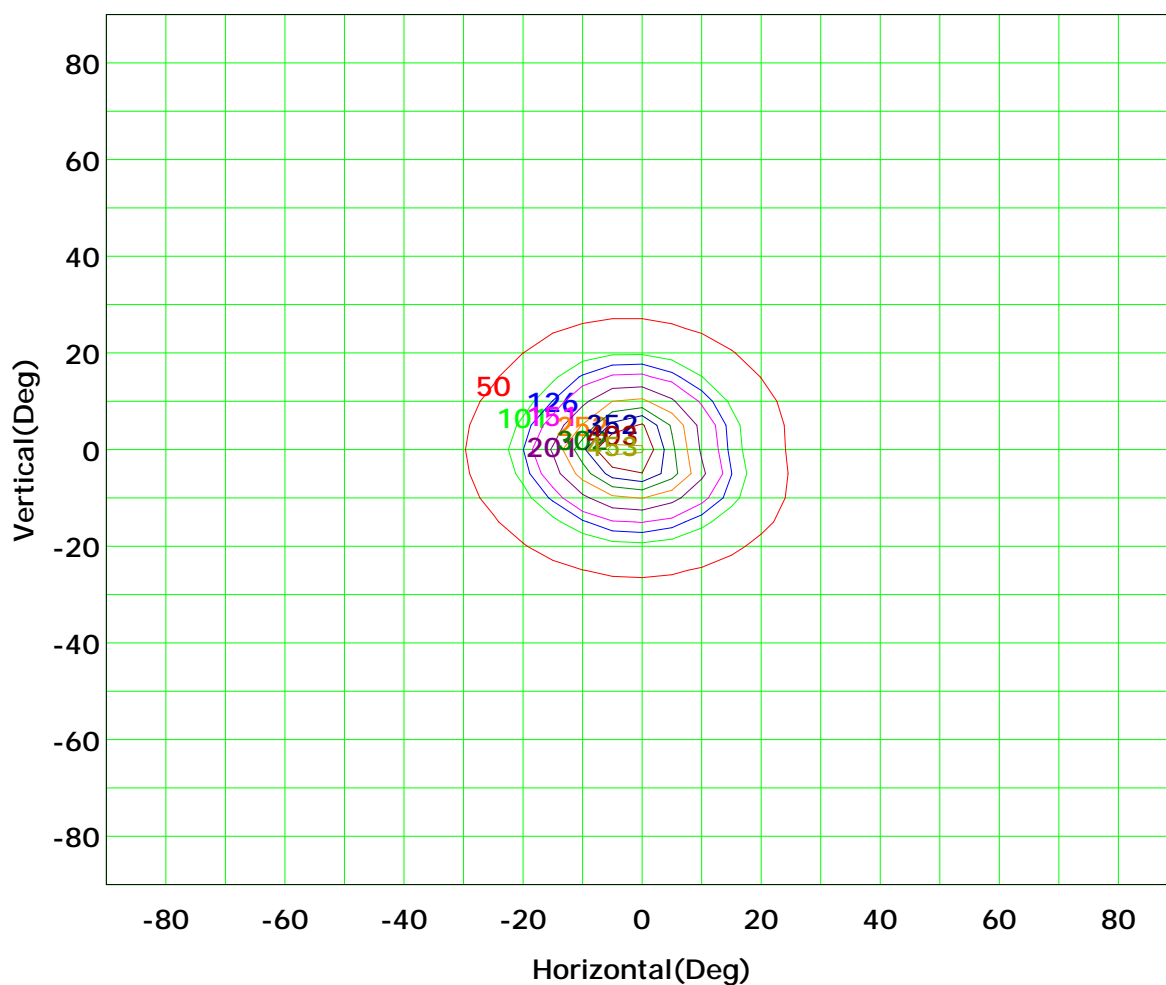
Spacing Criteria (Diagonal): 0.43



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:

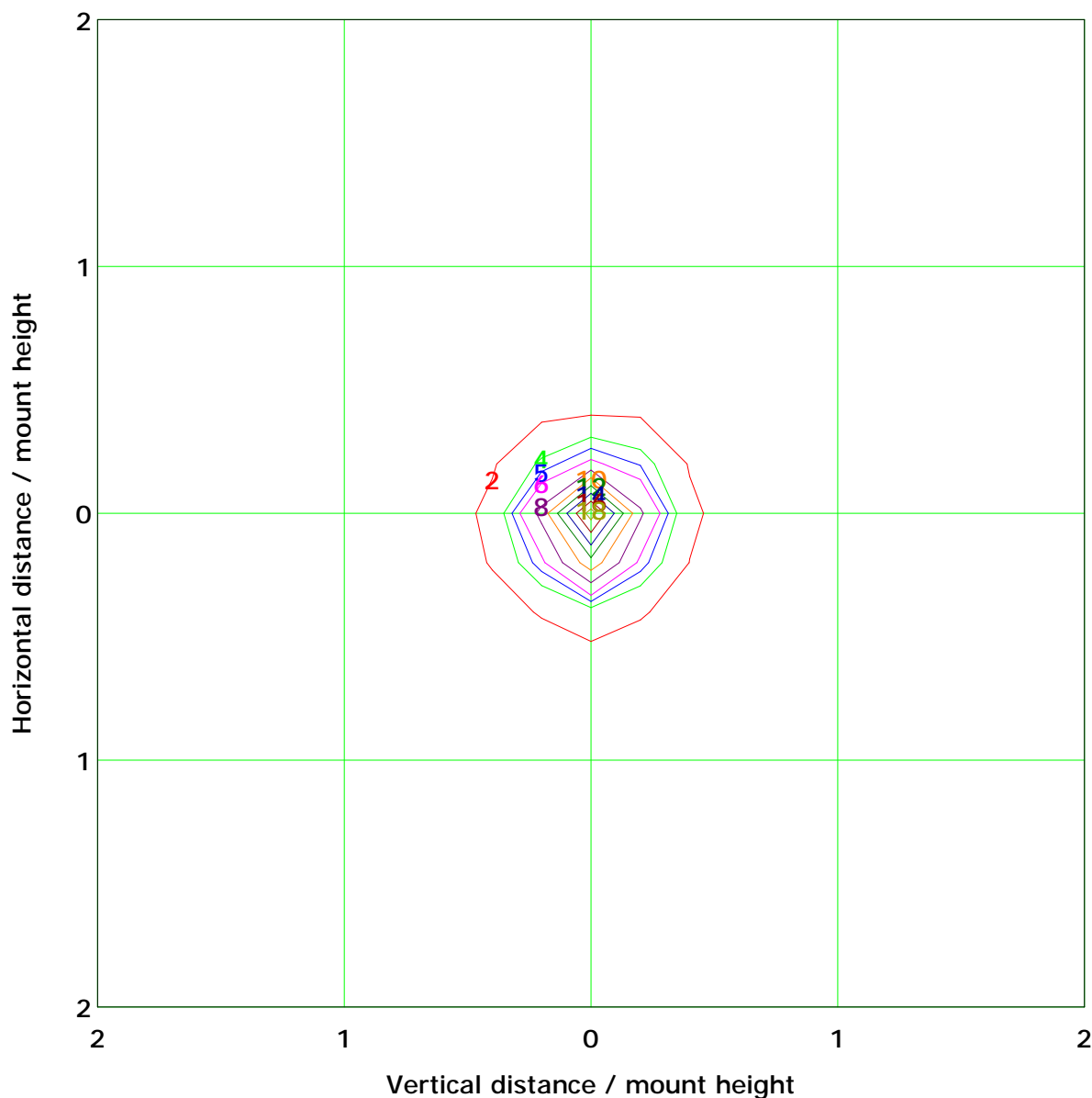
## Isocandela (rectangle)



I<sub>max</sub> (100%): 504 cd

( 10%): 50 cd	( 20%): 101 cd
( 25%): 126 cd	( 30%): 151 cd
( 40%): 201 cd	( 50%): 252 cd
( 60%): 302 cd	( 70%): 352 cd
( 80%): 403 cd	( 90%): 453 cd

## IsoLux Plot



Mounting Height: 5.0m    Max Lux(100%): 20.1 lx	
( 10%): 2.0 lx	( 20%): 4.0 lx
( 25%): 5.0 lx	( 30%): 6.0 lx
( 40%): 8.1 lx	( 50%): 10.1 lx
( 60%): 12.1 lx	( 70%): 14.1 lx
( 80%): 16.1 lx	( 90%): 18.1 lx

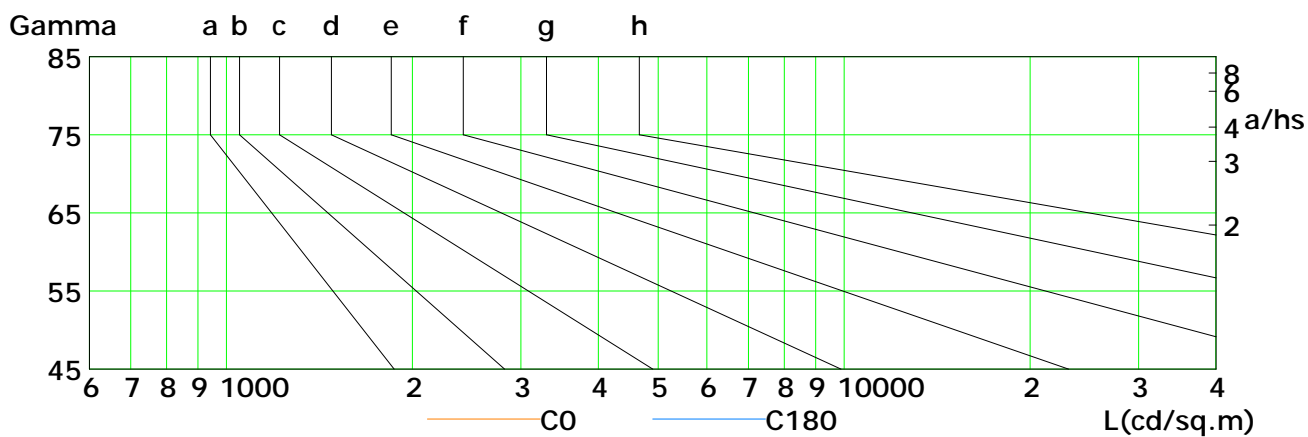
C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

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

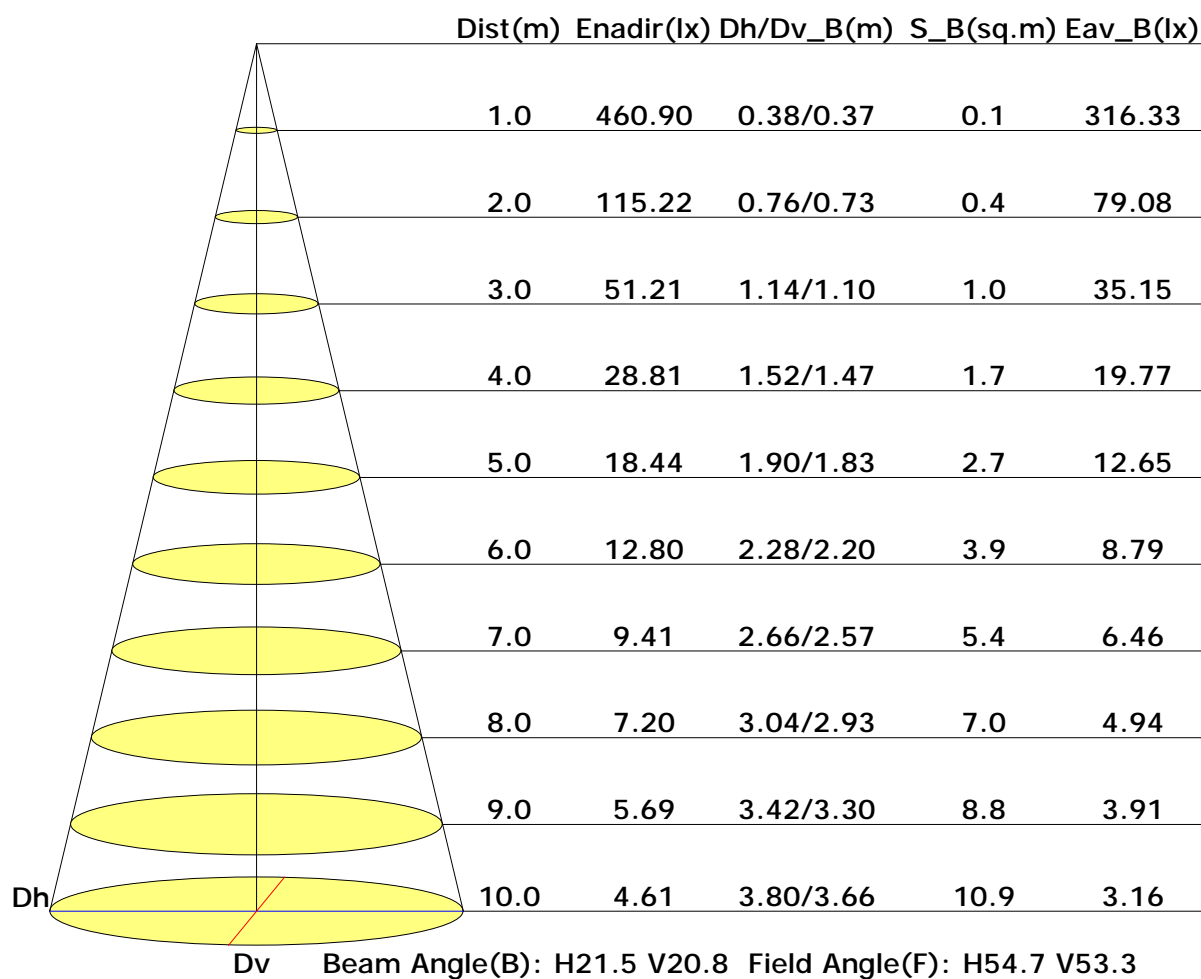


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	282	211	163	127	103	79	60	43	32
C90	337	265	220	185	161	137	117	101	102
C180	208	162	129	104	82	66	50	36	30
C270	254	189	133	78	66	66	68	81	95

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

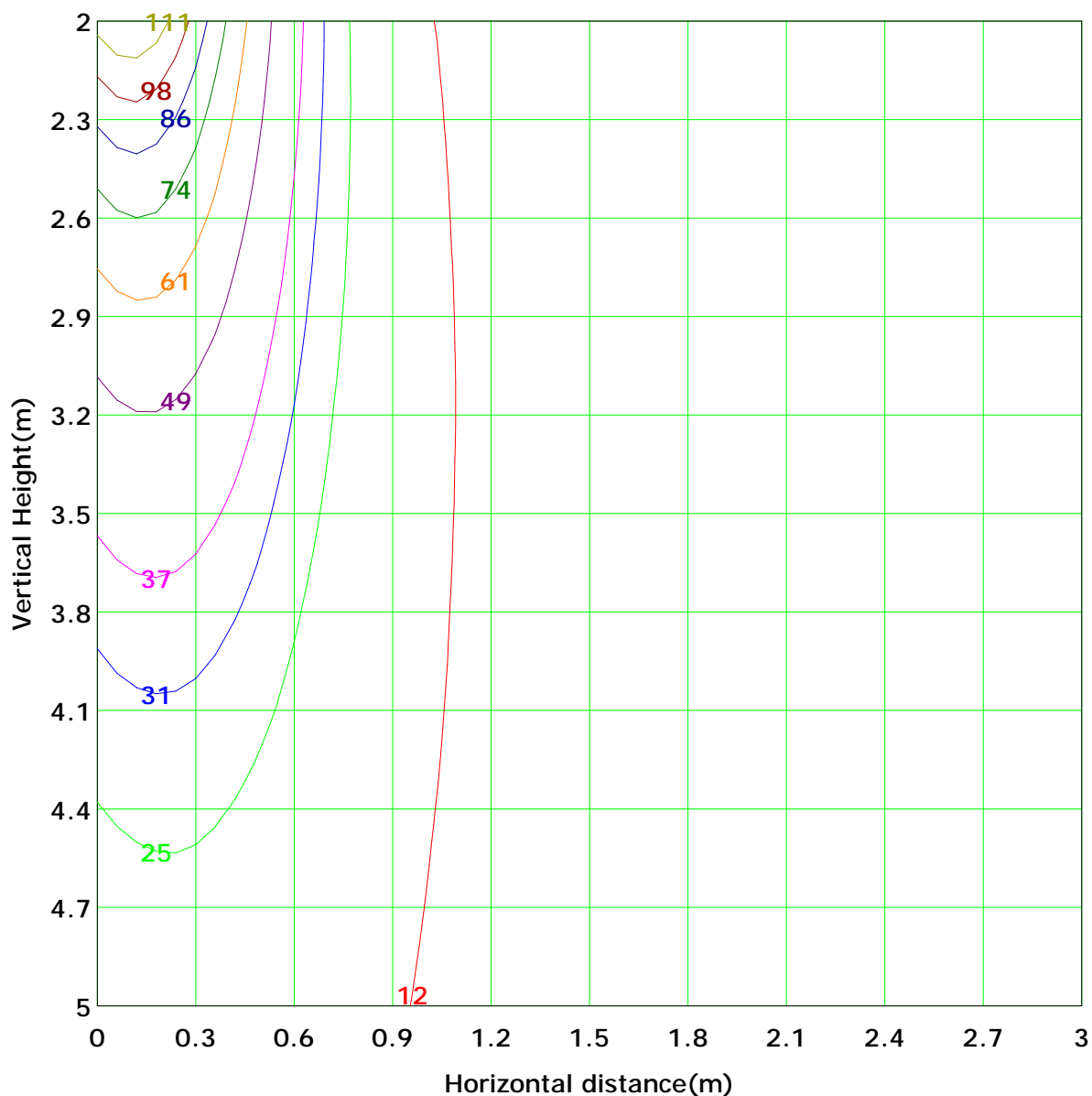


C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Jacky

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: 122.8 lx
( 10%): 12.3 lx	( 20%): 24.6 lx	
( 25%): 30.7 lx	( 30%): 36.9 lx	
( 40%): 49.1 lx	( 50%): 61.4 lx	
( 60%): 73.7 lx	( 70%): 86.0 lx	
( 80%): 98.3 lx	( 90%): 110.6 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

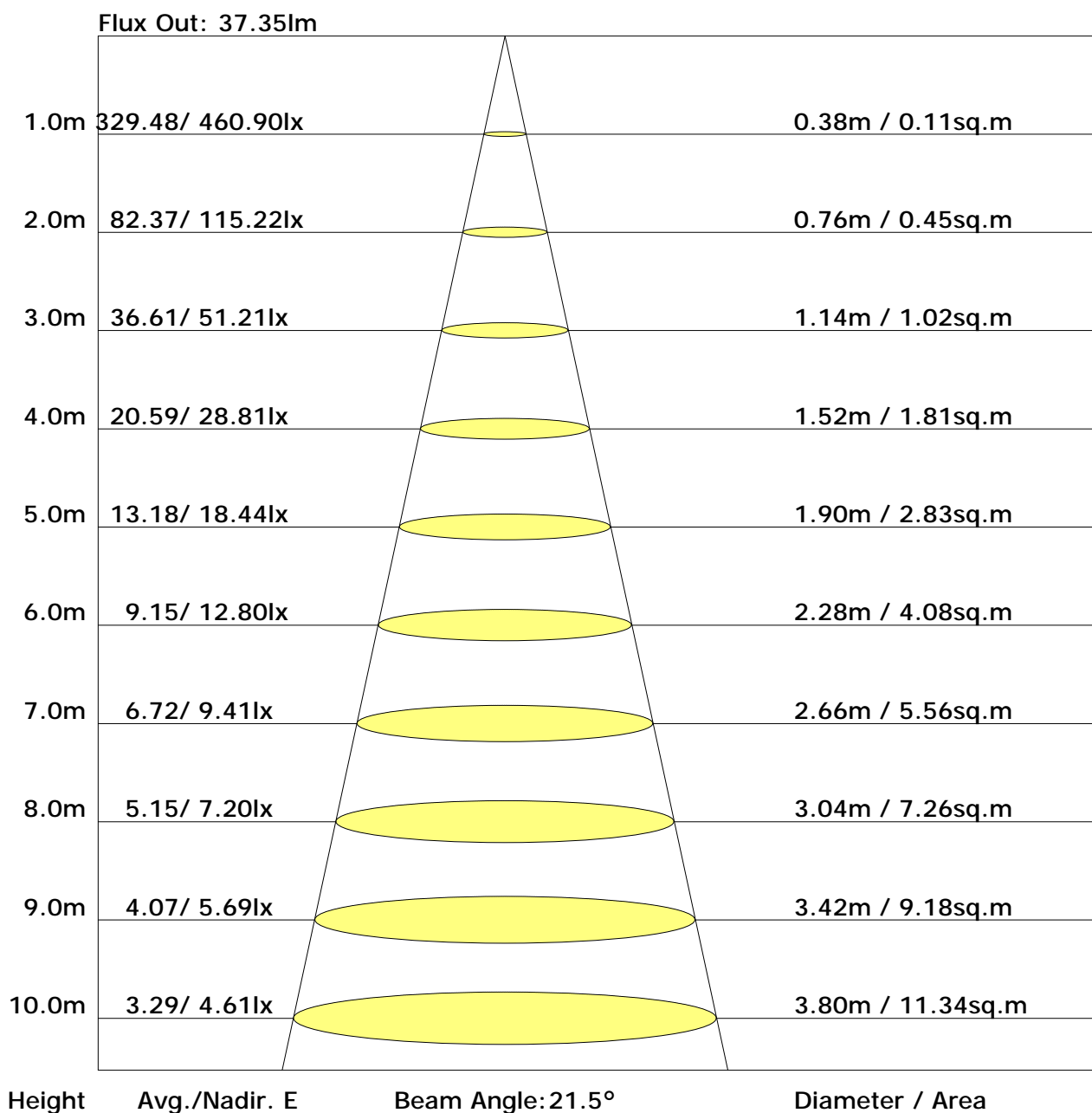
Unit: lm

		Vertical plane																		Flux(T)		Flux(E)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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



## 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	8.6	9.7	9.1	10.1	10.6	5.7	6.8	6.2	7.2	7.7
3H	10.1	11.0	10.6	11.5	12.0	7.0	7.9	7.5	8.4	8.9
4H	10.6	11.5	11.2	12.0	12.5	7.4	8.3	7.9	8.8	9.3
6H	11.1	11.9	11.6	12.4	12.9	7.8	8.6	8.3	9.1	9.6
8H	11.3	12.0	11.8	12.5	13.1	7.9	8.7	8.5	9.2	9.8
12H	11.4	12.1	12.0	12.7	13.3	8.1	8.8	8.6	9.3	9.9
X=4H Y=2H	8.6	9.5	9.2	10.0	10.5	6.3	7.2	6.8	7.7	8.2
3H	10.2	10.9	10.7	11.5	12.0	7.7	8.4	8.2	8.9	9.5
4H	10.9	11.5	11.4	12.0	12.7	8.2	8.9	8.8	9.4	10.0
6H	11.4	12.0	12.0	12.6	13.2	8.7	9.3	9.3	9.8	10.5
8H	11.7	12.2	12.3	12.8	13.4	8.9	9.4	9.5	10.0	10.6
12H	11.9	12.4	12.5	13.0	13.6	9.1	9.6	9.7	10.2	10.8
X=8H Y=4H	10.8	11.3	11.4	11.9	12.6	8.5	9.0	9.1	9.6	10.2
6H	11.5	11.9	12.1	12.5	13.2	9.1	9.5	9.7	10.2	10.8
8H	11.8	12.2	12.4	12.8	13.5	9.4	9.8	10.1	10.4	11.1
12H	12.2	12.5	12.8	13.1	13.8	9.7	10.1	10.4	10.7	11.4
X=12H Y=4H	10.8	11.2	11.4	11.8	12.5	8.5	9.0	9.1	9.6	10.2
6H	11.5	11.8	12.1	12.4	13.1	9.2	9.6	9.8	10.2	10.9
8H	11.8	12.2	12.5	12.8	13.5	9.6	9.9	10.2	10.5	11.2

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 = 0.50								
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	1.04	1.06	1.08
	0.30		0.73	0.80	0.85	0.89	0.94	0.98	1.00	1.04	1.06
	0.20		0.69	0.76	0.81	0.85	0.91	0.94	0.97	1.01	1.04
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		0.72	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	0.91	0.94	0.97	0.99
0.30	0.50	0.20	0.74	0.80	0.84	0.87	0.90	0.93	0.94	0.96	0.98
	0.30		0.70	0.76	0.81	0.84	0.88	0.90	0.92	0.95	0.96
	0.20		0.67	0.74	0.78	0.81	0.85	0.88	0.90	0.93	0.95
0.00	0.00	0.00	0.65	0.71	0.74	0.77	0.81	0.83	0.85	0.87	0.88
Rating: 10W 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 = 0.50								
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	0.55	0.47	0.41	0.32	0.27	0.23	0.18	0.15
	0.30		0.56	0.47	0.41	0.36	0.29	0.25	0.21	0.17	0.14
	0.20		0.48	0.41	0.36	0.32	0.27	0.23	0.20	0.16	0.13
0.50	0.50	0.20	0.63	0.51	0.43	0.37	0.30	0.28	0.21	0.16	0.13
	0.30		0.53	0.44	0.38	0.34	0.27	0.23	0.20	0.16	0.13
	0.20		0.46	0.39	0.34	0.30	0.25	0.21	0.19	0.15	0.12
0.30	0.50	0.20	0.59	0.47	0.40	0.34	0.27	0.22	0.19	0.15	0.12
	0.30		0.50	0.42	0.36	0.31	0.25	0.21	0.18	0.14	0.12
	0.20		0.44	0.37	0.32	0.29	0.23	0.20	0.17	0.14	0.11
0.00	0.00	0.00	0.30	0.24	0.21	0.18	0.14	0.12	0.10	0.08	0.07
Rating: 10W 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 = 0.50								
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	0.21	0.23	0.24	0.25	0.26	0.27	0.27	0.28	0.29
	0.30		0.16	0.18	0.20	0.21	0.23	0.24	0.25	0.26	0.27
	0.20		0.13	0.15	0.17	0.18	0.20	0.21	0.23	0.24	0.25
0.50	0.50	0.20	0.20	0.22	0.23	0.24	0.25	0.26	0.26	0.27	0.27
	0.30		0.16	0.18	0.19	0.20	0.22	0.23	0.24	0.25	0.26
	0.20		0.13	0.15	0.16	0.18	0.19	0.21	0.22	0.23	0.24
0.30	0.50	0.20	0.20	0.21	0.22	0.23	0.24	0.25	0.25	0.26	0.26
	0.30		0.16	0.17	0.19	0.20	0.21	0.22	0.23	0.24	0.25
	0.20		0.13	0.15	0.16	0.17	0.19	0.20	0.21	0.23	0.24
0.00	0.00	0.00	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Rating: 10W 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	484.5	0.5	0.5	0.29	0.29
1.0-2.0	476.6	1.4	1.8	0.87	1.16
2.0-3.0	461.4	2.2	4.0	1.40	2.56
3.0-4.0	440.5	2.9	7.0	1.87	4.42
4.0-5.0	415.2	3.6	10.6	2.26	6.69
5.0-6.0	387.1	4.1	14.6	2.58	9.26
6.0-7.0	357.7	4.4	19.1	2.81	12.07
7.0-8.0	328.4	4.7	23.8	2.98	15.05
8.0-9.0	299.9	4.9	28.6	3.08	18.12
9.0-10.0	272.8	4.9	33.6	3.13	21.25
10.0-11.0	247.5	4.9	38.5	3.13	24.38
11.0-12.0	224.1	4.9	43.4	3.10	27.48
12.0-13.0	202.7	4.8	48.2	3.04	30.53
13.0-14.0	183.3	4.7	52.9	2.97	33.50
14.0-15.0	165.5	4.5	57.5	2.88	36.38
15.0-16.0	149.6	4.4	61.8	2.77	39.15
16.0-17.0	135.3	4.2	66.1	2.67	41.82
17.0-18.0	122.4	4.0	70.1	2.55	44.37
18.0-19.0	110.8	3.9	74.0	2.44	46.81
19.0-20.0	100.4	3.7	77.6	2.33	49.14
20.0-21.0	91.0	3.5	81.1	2.21	51.35
21.0-22.0	82.5	3.3	84.4	2.10	53.45
22.0-23.0	74.9	3.1	87.6	1.99	55.44
23.0-24.0	68.1	3.0	90.6	1.89	57.33
24.0-25.0	61.9	2.8	93.4	1.78	59.11
25.0-26.0	56.5	2.7	96.0	1.69	60.80
26.0-27.0	51.5	2.5	98.6	1.60	62.39
27.0-28.0	47.1	2.4	100.9	1.51	63.90
28.0-29.0	43.1	2.3	103.2	1.43	65.33
29.0-30.0	39.4	2.1	105.3	1.35	66.68
30.0-31.0	36.2	2.0	107.3	1.28	67.95
31.0-32.0	33.2	1.9	109.3	1.21	69.16
32.0-33.0	30.6	1.8	111.1	1.14	70.30
33.0-34.0	28.1	1.7	112.8	1.08	71.38
34.0-35.0	25.9	1.6	114.4	1.02	72.40
35.0-36.0	23.9	1.5	115.9	0.96	73.36

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	22.1	1.4	117.3	0.91	74.27
37.0-38.0	20.4	1.4	118.7	0.86	75.13
38.0-39.0	19.0	1.3	120.0	0.82	75.95
39.0-40.0	17.6	1.2	121.2	0.78	76.73
40.0-41.0	16.4	1.2	122.4	0.74	77.47
41.0-42.0	15.3	1.1	123.5	0.71	78.18
42.0-43.0	14.4	1.1	124.6	0.67	78.85
43.0-44.0	13.5	1.0	125.6	0.65	79.50
44.0-45.0	12.7	1.0	126.6	0.62	80.12
45.0-46.0	12.0	0.9	127.5	0.59	80.71
46.0-47.0	11.3	0.9	128.4	0.57	81.28
47.0-48.0	10.7	0.9	129.3	0.55	81.83
48.0-49.0	10.1	0.8	130.1	0.53	82.35
49.0-50.0	9.6	0.8	130.9	0.51	82.86
50.0-51.0	9.1	0.8	131.7	0.49	83.35
51.0-52.0	8.6	0.7	132.4	0.47	83.81
52.0-53.0	8.1	0.7	133.1	0.45	84.26
53.0-54.0	7.7	0.7	133.8	0.43	84.69
54.0-55.0	7.3	0.7	134.4	0.41	85.10
55.0-56.0	6.9	0.6	135.1	0.40	85.50
56.0-57.0	6.5	0.6	135.7	0.38	85.88
57.0-58.0	6.2	0.6	136.2	0.36	86.24
58.0-59.0	5.9	0.5	136.8	0.35	86.59
59.0-60.0	5.5	0.5	137.3	0.33	86.92
60.0-61.0	5.2	0.5	137.8	0.32	87.23
61.0-62.0	5.0	0.5	138.3	0.30	87.54
62.0-63.0	4.7	0.5	138.7	0.29	87.83
63.0-64.0	4.5	0.4	139.2	0.28	88.10
64.0-65.0	4.3	0.4	139.6	0.27	88.37
65.0-66.0	4.1	0.4	140.0	0.26	88.63
66.0-67.0	3.9	0.4	140.4	0.25	88.87
67.0-68.0	3.7	0.4	140.8	0.24	89.11
68.0-69.0	3.5	0.4	141.1	0.23	89.34
69.0-70.0	3.3	0.3	141.5	0.22	89.56
70.0-71.0	3.2	0.3	141.8	0.21	89.76
71.0-72.0	3.0	0.3	142.1	0.20	89.96

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	2.9	0.3	142.4	0.19	90.15
73.0-74.0	2.7	0.3	142.7	0.18	90.34
74.0-75.0	2.6	0.3	143.0	0.17	90.51
75.0-76.0	2.5	0.3	143.2	0.17	90.68
76.0-77.0	2.4	0.3	143.5	0.16	90.84
77.0-78.0	2.3	0.2	143.7	0.15	90.99
78.0-79.0	2.2	0.2	144.0	0.15	91.14
79.0-80.0	2.1	0.2	144.2	0.14	91.28
80.0-81.0	2.0	0.2	144.4	0.14	91.42
81.0-82.0	1.9	0.2	144.6	0.13	91.56
82.0-83.0	1.9	0.2	144.8	0.13	91.69
83.0-84.0	1.8	0.2	145.0	0.13	91.81
84.0-85.0	1.8	0.2	145.2	0.12	91.94
85.0-86.0	1.8	0.2	145.4	0.12	92.06
86.0-87.0	1.7	0.2	145.6	0.12	92.18
87.0-88.0	1.7	0.2	145.8	0.12	92.30
88.0-89.0	1.7	0.2	146.0	0.12	92.42
89.0-90.0	1.7	0.2	146.2	0.12	92.54
90.0-91.0	1.7	0.2	146.4	0.12	92.65
91.0-92.0	1.7	0.2	146.6	0.12	92.77
92.0-93.0	1.7	0.2	146.7	0.12	92.89
93.0-94.0	1.7	0.2	146.9	0.12	93.01
94.0-95.0	1.7	0.2	147.1	0.12	93.13
95.0-96.0	1.7	0.2	147.3	0.12	93.24
96.0-97.0	1.7	0.2	147.5	0.12	93.36
97.0-98.0	1.7	0.2	147.7	0.12	93.48
98.0-99.0	1.7	0.2	147.9	0.12	93.59
99.0-100.0	1.7	0.2	148.0	0.11	93.71
100.0-101.0	1.7	0.2	148.2	0.11	93.82
101.0-102.0	1.7	0.2	148.4	0.11	93.94
102.0-103.0	1.7	0.2	148.6	0.11	94.05
103.0-104.0	1.7	0.2	148.8	0.11	94.16
104.0-105.0	1.7	0.2	148.9	0.11	94.27
105.0-106.0	1.7	0.2	149.1	0.11	94.39
106.0-107.0	1.7	0.2	149.3	0.11	94.50
107.0-108.0	1.7	0.2	149.5	0.11	94.61

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	1.7	0.2	149.6	0.11	94.72
109.0-110.0	1.7	0.2	149.8	0.11	94.83
110.0-111.0	1.7	0.2	150.0	0.11	94.94
111.0-112.0	1.7	0.2	150.2	0.11	95.05
112.0-113.0	1.7	0.2	150.3	0.11	95.16
113.0-114.0	1.7	0.2	150.5	0.11	95.27
114.0-115.0	1.7	0.2	150.7	0.11	95.37
115.0-116.0	1.7	0.2	150.8	0.11	95.48
116.0-117.0	1.7	0.2	151.0	0.11	95.59
117.0-118.0	1.7	0.2	151.2	0.11	95.69
118.0-119.0	1.7	0.2	151.3	0.11	95.80
119.0-120.0	1.7	0.2	151.5	0.10	95.90
120.0-121.0	1.7	0.2	151.7	0.10	96.01
121.0-122.0	1.8	0.2	151.8	0.10	96.11
122.0-123.0	1.8	0.2	152.0	0.10	96.21
123.0-124.0	1.8	0.2	152.2	0.10	96.32
124.0-125.0	1.8	0.2	152.3	0.10	96.42
125.0-126.0	1.8	0.2	152.5	0.10	96.52
126.0-127.0	1.8	0.2	152.6	0.10	96.62
127.0-128.0	1.8	0.2	152.8	0.10	96.72
128.0-129.0	1.8	0.2	152.9	0.10	96.81
129.0-130.0	1.8	0.2	153.1	0.10	96.91
130.0-131.0	1.8	0.2	153.2	0.10	97.01
131.0-132.0	1.8	0.1	153.4	0.09	97.10
132.0-133.0	1.9	0.2	153.5	0.09	97.20
133.0-134.0	1.9	0.1	153.7	0.09	97.29
134.0-135.0	1.9	0.1	153.8	0.09	97.38
135.0-136.0	1.9	0.1	154.0	0.09	97.48
136.0-137.0	1.9	0.1	154.1	0.09	97.57
137.0-138.0	2.0	0.1	154.3	0.09	97.66
138.0-139.0	2.0	0.1	154.4	0.09	97.75
139.0-140.0	2.0	0.1	154.6	0.09	97.84
140.0-141.0	2.0	0.1	154.7	0.09	97.93
141.0-142.0	2.1	0.1	154.8	0.09	98.02
142.0-143.0	2.1	0.1	155.0	0.09	98.11
143.0-144.0	2.1	0.1	155.1	0.09	98.20

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	2.1	0.1	155.3	0.09	98.28
145.0-146.0	2.1	0.1	155.4	0.08	98.37
146.0-147.0	2.2	0.1	155.5	0.08	98.45
147.0-148.0	2.2	0.1	155.7	0.08	98.53
148.0-149.0	2.2	0.1	155.8	0.08	98.61
149.0-150.0	2.3	0.1	155.9	0.08	98.69
150.0-151.0	2.3	0.1	156.0	0.08	98.77
151.0-152.0	2.3	0.1	156.2	0.08	98.85
152.0-153.0	2.3	0.1	156.3	0.07	98.93
153.0-154.0	2.4	0.1	156.4	0.07	99.00
154.0-155.0	2.4	0.1	156.5	0.07	99.07
155.0-156.0	2.4	0.1	156.6	0.07	99.14
156.0-157.0	2.4	0.1	156.7	0.07	99.21
157.0-158.0	2.4	0.1	156.8	0.06	99.27
158.0-159.0	2.5	0.1	156.9	0.06	99.33
159.0-160.0	2.5	0.1	157.0	0.06	99.39
160.0-161.0	2.5	0.1	157.1	0.06	99.45
161.0-162.0	2.5	0.1	157.2	0.05	99.51
162.0-163.0	2.5	0.1	157.3	0.05	99.56
163.0-164.0	2.5	0.1	157.4	0.05	99.61
164.0-165.0	2.5	0.1	157.4	0.05	99.66
165.0-166.0	2.5	0.1	157.5	0.04	99.70
166.0-167.0	2.5	0.1	157.6	0.04	99.74
167.0-168.0	2.5	0.1	157.6	0.04	99.78
168.0-169.0	2.5	0.1	157.7	0.04	99.81
169.0-170.0	2.6	0.1	157.7	0.03	99.85
170.0-171.0	2.6	0.0	157.8	0.03	99.88
171.0-172.0	2.5	0.0	157.8	0.03	99.90
172.0-173.0	2.5	0.0	157.9	0.02	99.92
173.0-174.0	2.5	0.0	157.9	0.02	99.94
174.0-175.0	2.5	0.0	157.9	0.02	99.96
175.0-176.0	2.5	0.0	157.9	0.01	99.98
176.0-177.0	2.5	0.0	158.0	0.01	99.99
177.0-178.0	2.5	0.0	158.0	0.01	99.99
178.0-179.0	2.5	0.0	158.0	0.00	100.00
179.0-180.0	2.5	0.0	158.0	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: