

Report No.:

Test Time: 2023/10/30 10:50

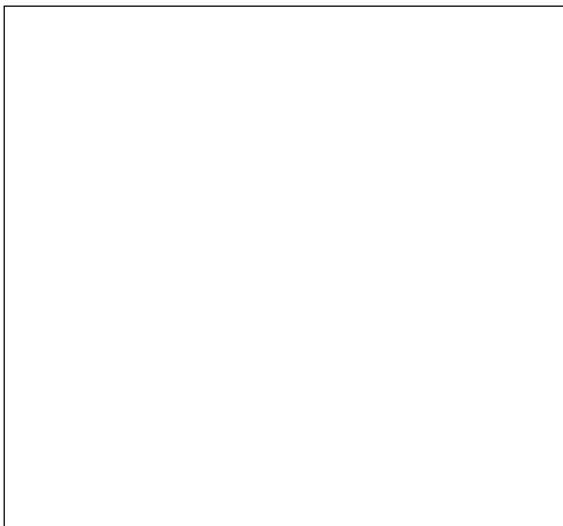
## Luminaire Property

Luminaire Manufacturer: Acolyte  
Luminaire Category: Scroll pendants  
Luminaire Description: Scroll pendants C50S SW HO 38W  
Luminous Length (mm): 300  
Luminous Width (mm): 50  
Luminous Height (mm): 30  
Voltage: 34.0 V  
Current: 0.320 A  
Power: 10.87 W  
Power Factor: 1.000

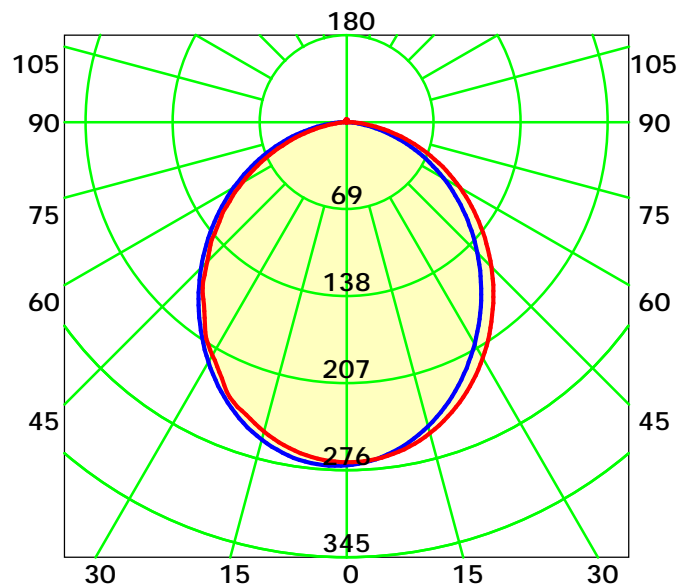
## Photometric Results

CIE Class: Direct  
Measurement Flux: 689.1 lm  
Downward Ratio: 99%  
Horizontal Diffuse Angle(10%,50%): H156.8,H99.5  
Vertical Diffuse Angle(10%,50%): V157.1,V102.5  
Luminaire Efficacy Rating (LER): 63  
Max. Intensity: 273.12 cd  
Total Rated Lamp Lumens: 689.1 lm  
Efficiency: 100%  
Upward Ratio: 1%  
Central Intensity: 272.59 cd  
Pos of Max. Intensity: H180 V3

Picture Of Luminaire



Luminous Intensity Distribution Curve



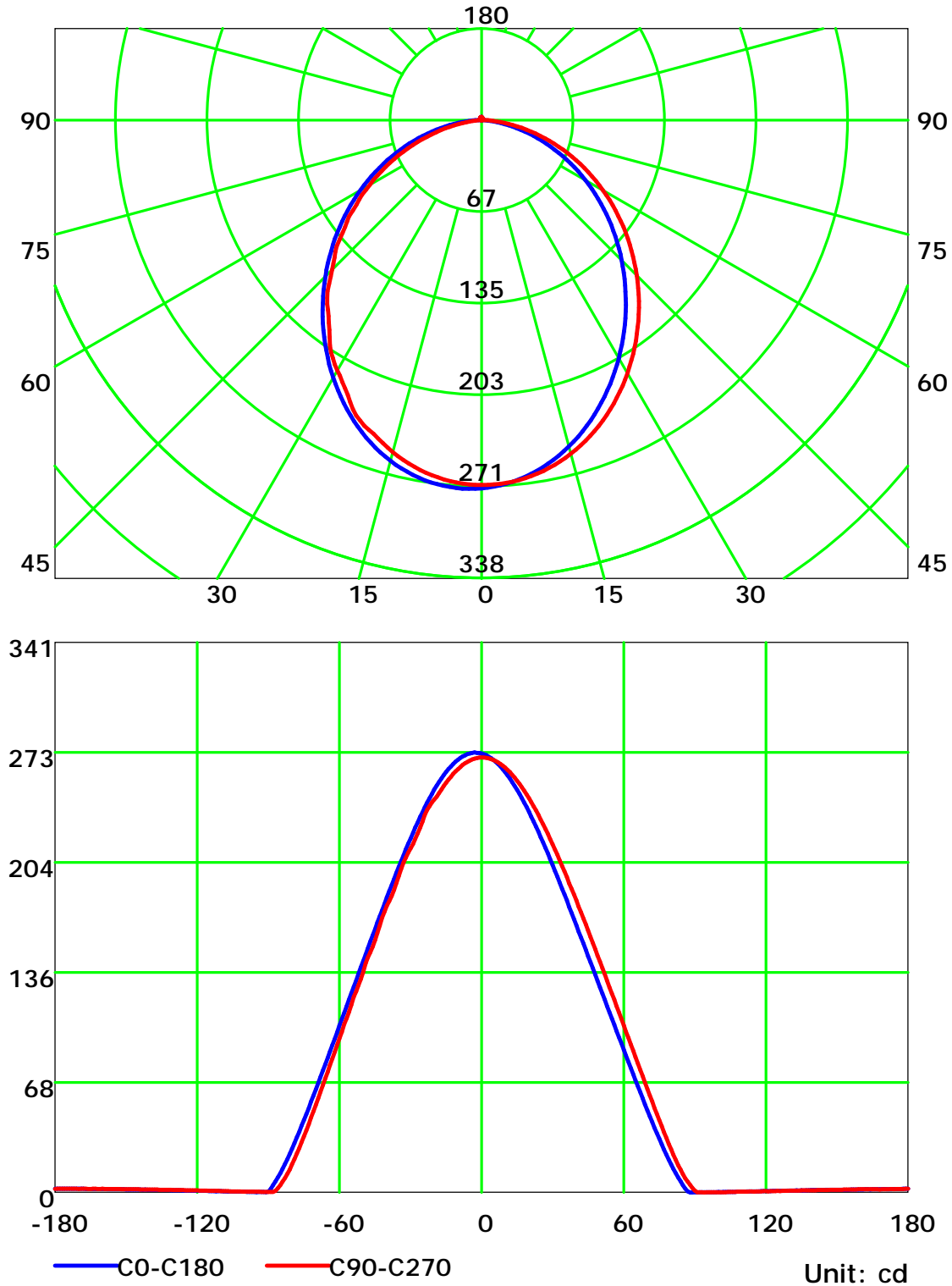
Unit: cd  
Average Diffuse Angle(50%): 101.0°  
— C0-C180 — C90-C270

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

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



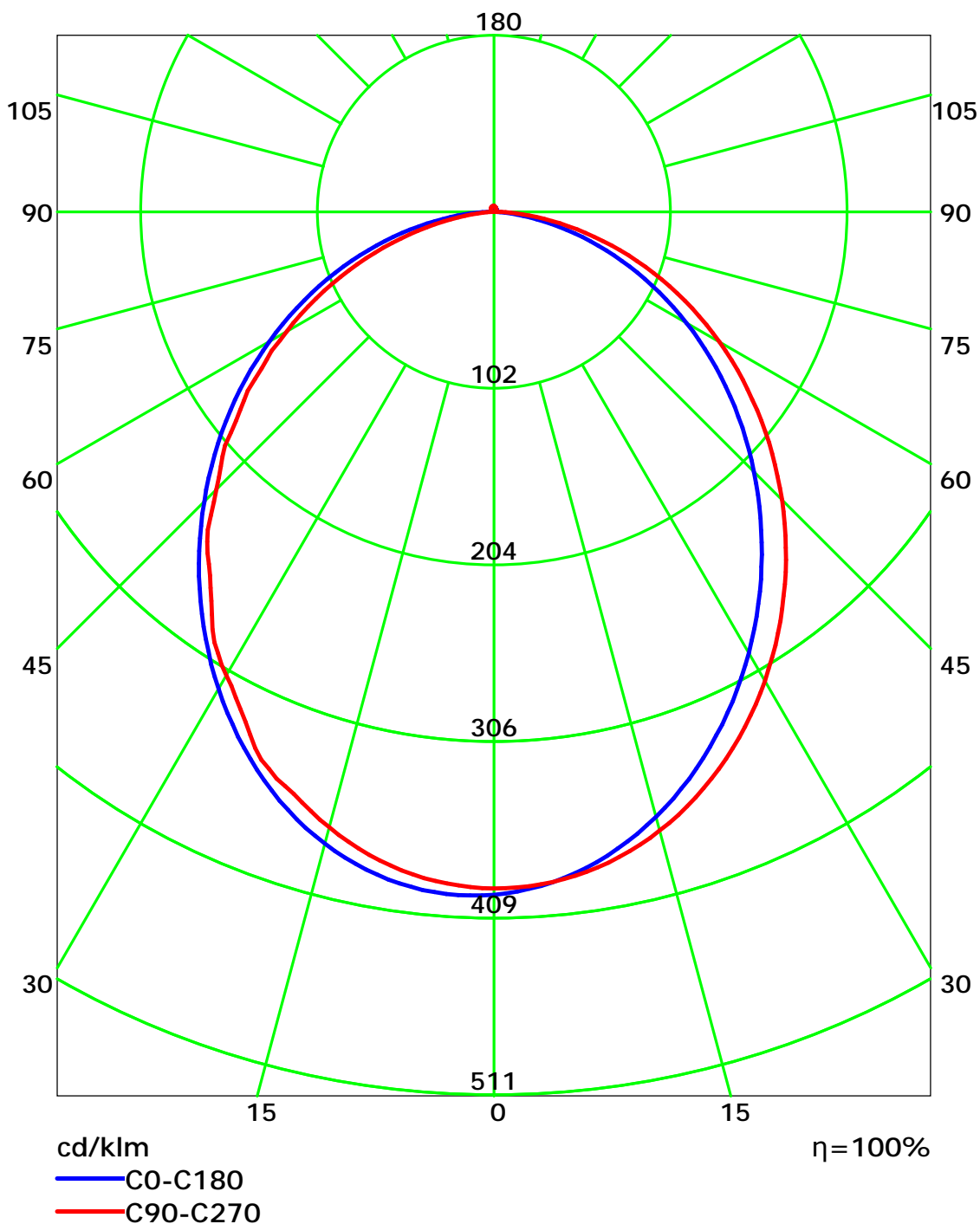
## Luminous Intensity Distribution Curve



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

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: Nick

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

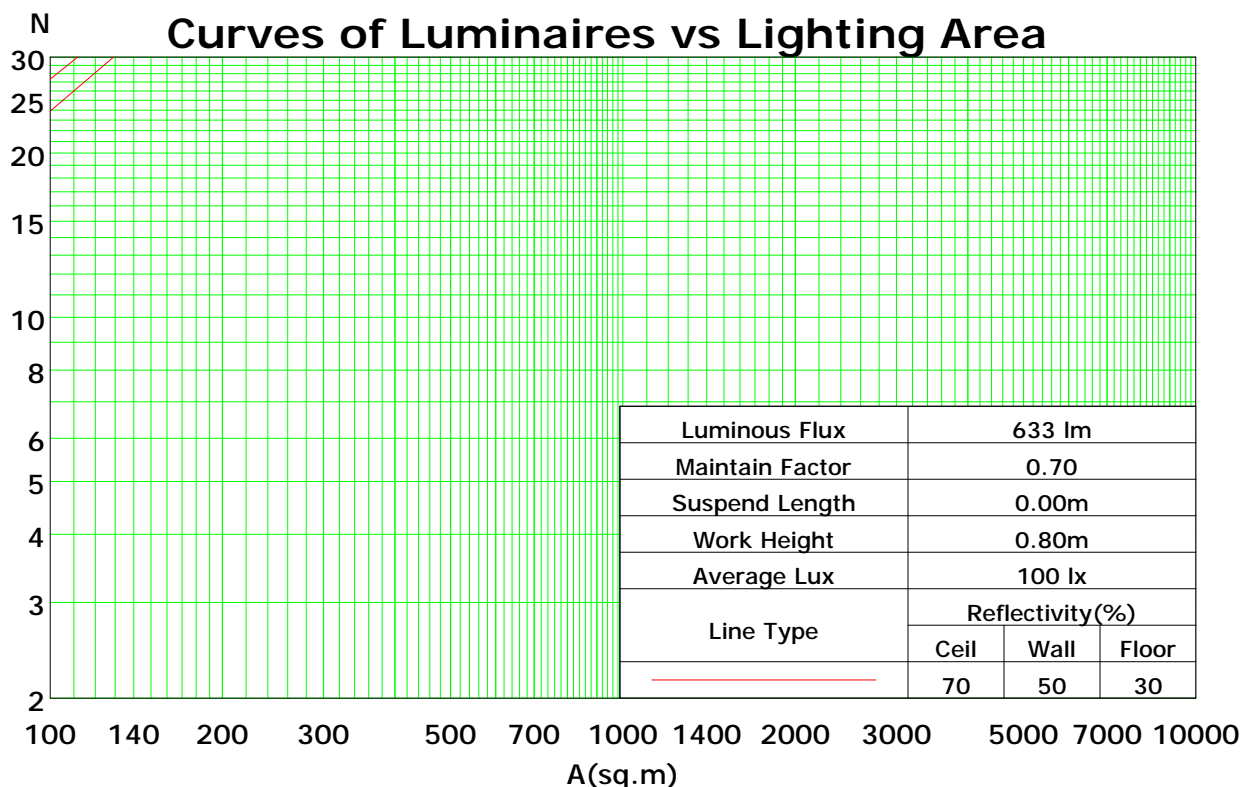
## Coefficients Of Utilization - Zonal Cavity Method

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99
1	109	104	100	96	106	102	98	95	97	94	92	93	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	82	78	74	79	76	72	70
3	91	80	73	66	88	79	71	66	76	69	64	73	67	63	70	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	53	51
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	49	43	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	43	37	33	31
9	57	44	36	31	56	44	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	31	27	25

Spacing Criteria (0-180): 1.16

Spacing Criteria (90-270): 1.19

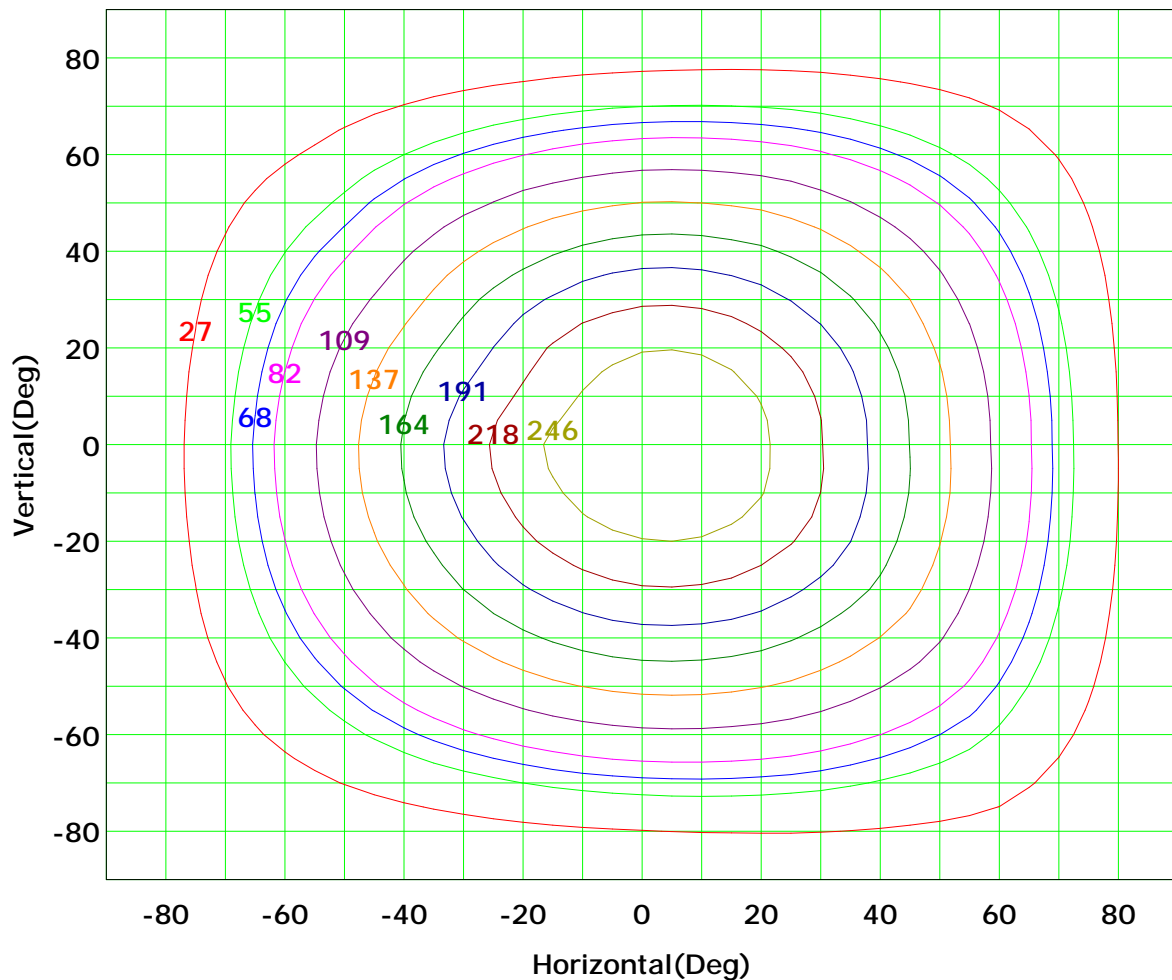
Spacing Criteria (Diagonal): 1.29



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

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

## Isocandela (rectangle)



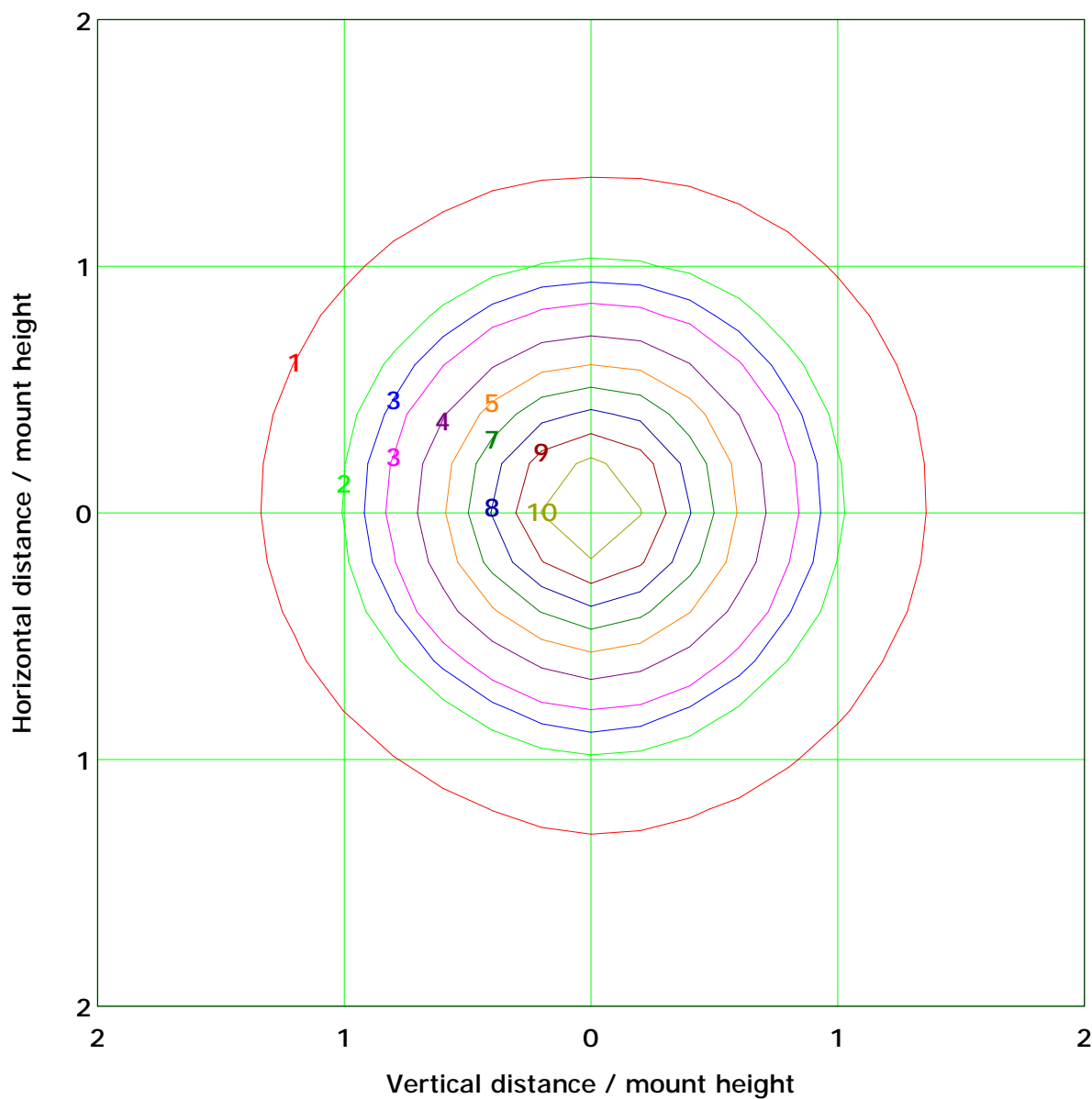
I<sub>max</sub> (100%): 273 cd

( 10%):	27 cd	( 20%):	55 cd
( 25%):	68 cd	( 30%):	82 cd
( 40%):	109 cd	( 50%):	137 cd
( 60%):	164 cd	( 70%):	191 cd
( 80%):	218 cd	( 90%):	246 cd

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

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%): 10.9 lx	
( 10%):	1.1 lx	( 20%):	2.2 lx
( 25%):	2.7 lx	( 30%):	3.3 lx
( 40%):	4.4 lx	( 50%):	5.5 lx
( 60%):	6.5 lx	( 70%):	7.6 lx
( 80%):	8.7 lx	( 90%):	9.8 lx

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

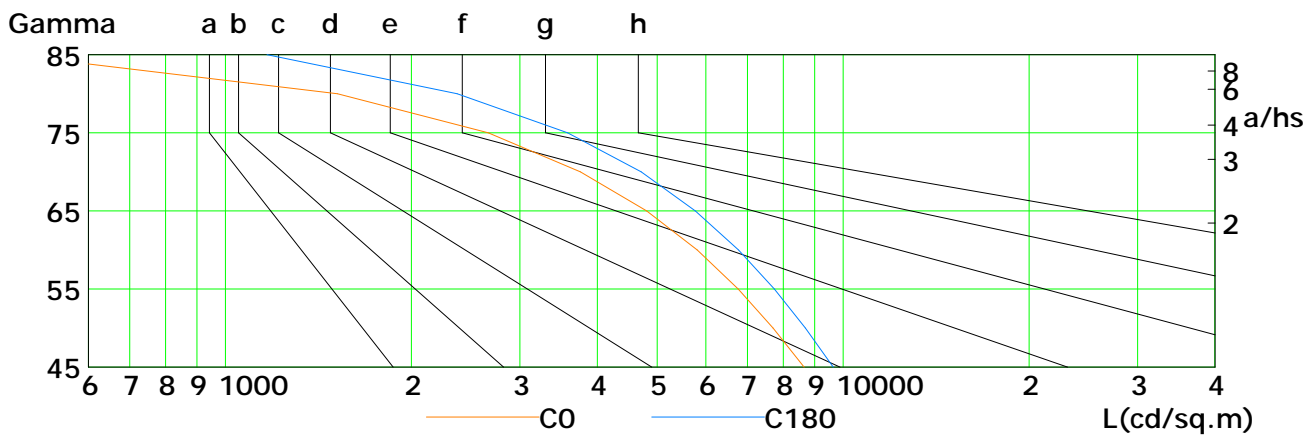
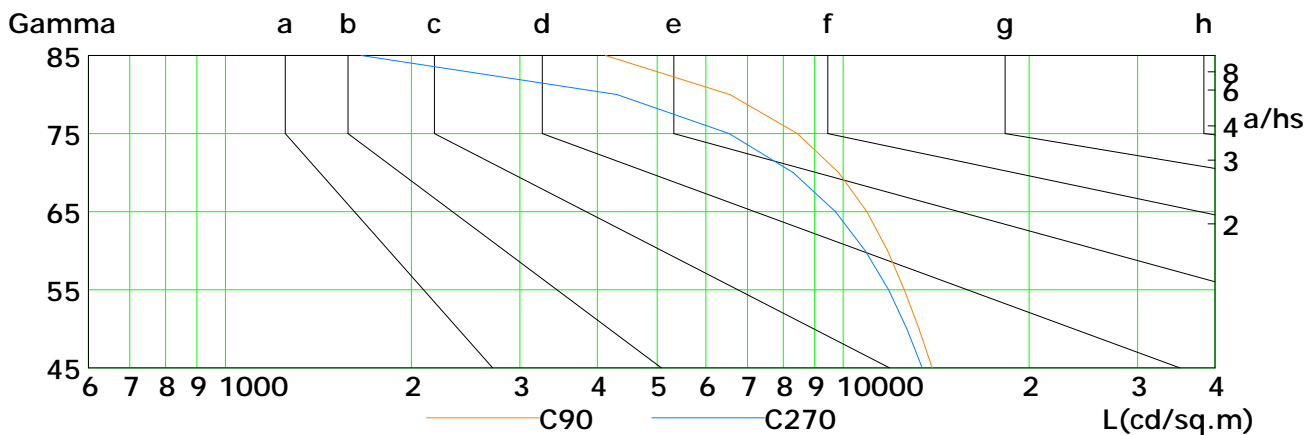
Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:



## 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



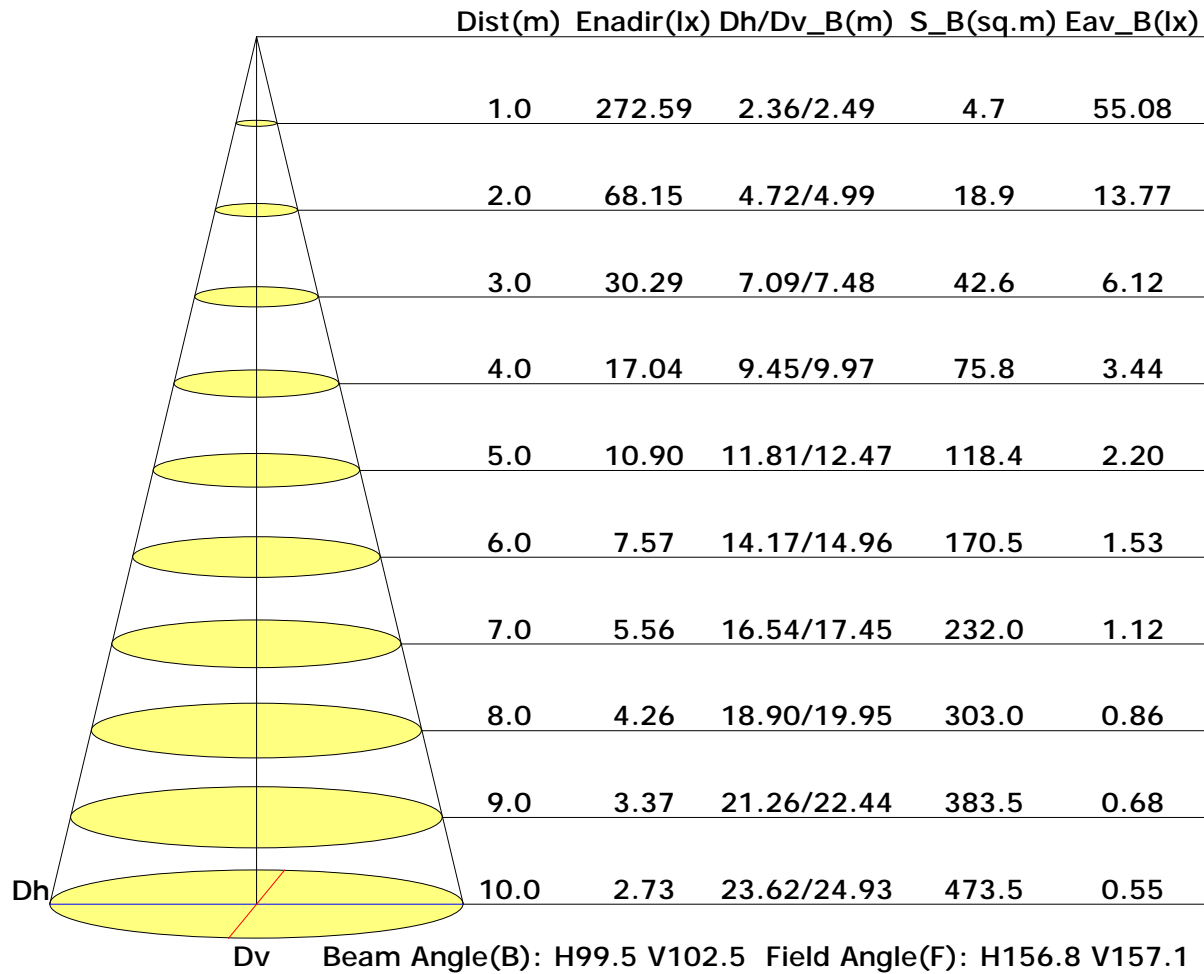
L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	8647	7701	6767	5805	4808	3759	2663	1518	453
C90	13939	13281	12564	11810	10929	9837	8439	6556	4123
C180	9636	8693	7745	6774	5768	4711	3582	2374	1168
C270	13439	12690	11848	10858	9725	8311	6543	4302	1660

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

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

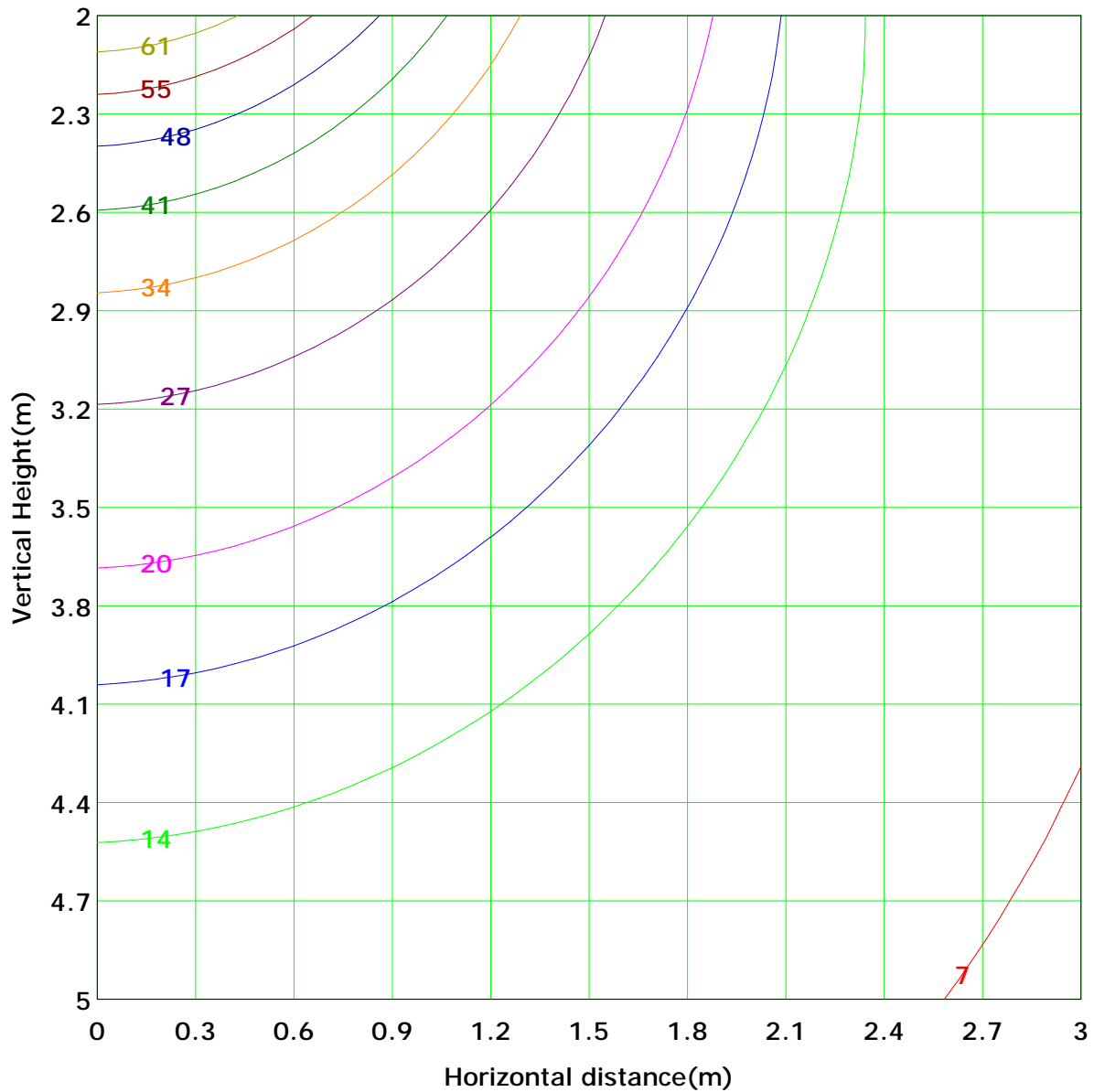


## Illuminance at a Distance





## Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 68.1 lx
( 10%): 6.8 lx	( 20%): 13.6 lx	
( 25%): 17.0 lx	( 30%): 20.4 lx	
( 40%): 27.3 lx	( 50%): 34.1 lx	
( 60%): 40.9 lx	( 70%): 47.7 lx	
( 80%): 54.5 lx	( 90%): 61.3 lx	

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

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

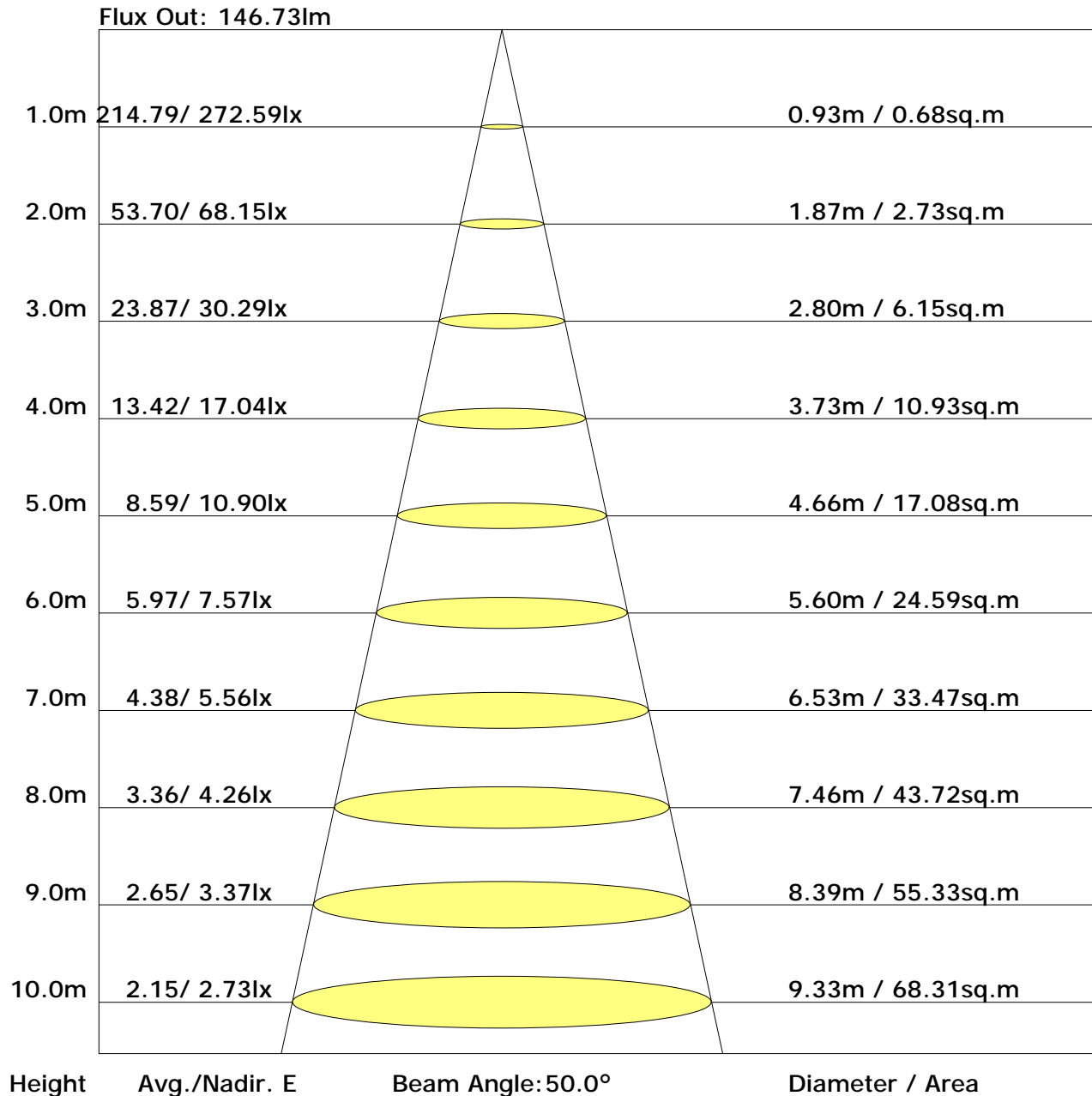
## Area Flux Table

Unit: lm

		Vertical plane																		Flux(T)		Flux(E)	
		Horizontal plane																					
Vertical plane	Flux(T)	-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	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.5	0.0	
		0.0	0.1	0.2	0.4	0.6	0.8	1.0	1.1	1.1	1.1	1.0	0.9	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0		
		0.0	0.1	0.4	0.7	1.1	1.6	1.9	2.2	2.3	2.2	2.0	1.6	1.2	0.8	0.5	0.3	0.1	0.0	0.0	18.6	17.8	
		0.0	0.2	0.5	1.1	1.7	2.4	2.9	3.4	3.5	3.5	3.1	2.6	2.2	1.9	1.5	1.2	0.8	0.4	0.2	0.0	29.1	
		0.0	0.2	0.7	1.4	2.2	3.1	3.9	4.8	5.0	5.0	4.4	3.6	3.2	2.6	2.4	2.0	1.6	1.2	0.7	0.0	28.7	
		0.0	0.3	0.8	1.7	2.7	3.8	4.8	5.6	6.0	6.0	5.2	4.3	3.2	2.6	2.2	1.8	1.3	0.9	0.5	0.0	39.3	
		0.0	0.3	1.0	1.9	3.1	4.4	5.6	6.5	7.0	6.8	6.1	5.0	3.8	2.6	2.2	1.6	1.1	0.7	0.3	0.0	48.7	
		0.0	0.4	1.0	2.1	3.4	4.8	6.2	7.2	7.7	7.5	6.7	5.5	4.2	2.9	2.2	1.8	1.3	0.8	0.5	0.0	56.7	
		0.0	0.4	1.1	2.2	3.5	5.0	6.5	7.6	8.1	7.9	7.1	5.9	4.5	3.1	2.4	1.9	1.4	0.9	0.6	0.0	62.6	
		0.0	0.4	1.1	2.2	3.5	5.0	6.5	7.6	8.1	8.0	7.3	6.0	4.6	3.1	2.4	1.9	1.4	0.9	0.6	0.0	62.4	
		0.0	0.4	1.1	2.2	3.5	5.0	6.5	7.6	8.1	8.0	7.3	6.0	4.6	3.1	2.4	1.9	1.4	0.9	0.6	0.0	66.1	
		0.0	0.4	1.1	2.2	3.5	5.0	6.5	7.6	8.1	8.0	7.3	6.0	4.6	3.1	2.4	1.9	1.4	0.9	0.6	0.0	66.0	
		0.0	0.4	1.1	2.1	3.5	4.9	6.3	7.3	7.7	7.6	6.9	5.7	4.4	3.0	2.3	1.8	1.3	0.8	0.5	0.0	66.6	
		0.0	0.3	1.0	2.0	3.2	4.6	5.7	6.6	7.0	6.9	6.2	5.2	4.0	2.8	2.1	1.7	1.2	0.8	0.5	0.0	63.8	
		0.0	0.3	0.9	1.8	2.9	4.0	5.0	5.7	6.0	5.9	5.4	4.5	3.5	2.4	1.9	1.4	0.9	0.6	0.4	0.0	58.3	
		0.0	0.3	0.8	1.5	2.4	3.3	4.1	4.7	4.9	4.8	4.4	3.7	2.8	2.0	1.5	1.2	0.8	0.5	0.3	0.0	50.7	
		0.0	0.2	0.6	1.2	1.9	2.6	3.2	3.6	3.8	3.7	3.3	2.8	2.2	1.5	1.1	0.9	0.6	0.4	0.2	0.0	41.8	
		0.0	0.2	0.5	0.9	1.3	1.8	2.2	2.5	2.6	2.5	2.2	1.9	1.4	1.0	0.7	0.5	0.3	0.2	0.1	0.0	41.6	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	32.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	31.7	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	21.8	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	21.2	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	11.8	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	10.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	3.5	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	
		0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.4	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	



## 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	20.2	21.8	20.6	22.1	22.5	20.3	21.9	20.7	22.2	22.6
3H	21.7	23.1	22.1	23.5	23.8	21.8	23.2	22.1	23.5	23.9
4H	22.2	23.5	22.6	23.9	24.3	22.2	23.5	22.6	23.9	24.3
6H	22.4	23.7	22.9	24.1	24.5	22.5	23.7	22.9	24.1	24.5
8H	22.5	23.7	22.9	24.1	24.5	22.5	23.7	23.0	24.1	24.5
12H	22.5	23.6	22.9	24.0	24.5	22.6	23.7	23.0	24.1	24.5
X=4H Y=2H	20.6	21.9	21.0	22.3	22.7	20.9	22.3	21.3	22.6	23.0
3H	22.2	23.3	22.6	23.7	24.2	22.5	23.6	23.0	24.1	24.5
4H	22.7	23.7	23.2	24.2	24.6	23.1	24.1	23.5	24.5	25.0
6H	23.1	23.9	23.5	24.4	24.9	23.4	24.3	23.9	24.8	25.3
8H	23.1	23.9	23.6	24.4	24.9	23.5	24.3	24.0	24.8	25.3
12H	23.1	23.9	23.6	24.4	24.9	23.6	24.3	24.1	24.8	25.3
X=8H Y=4H	22.8	23.6	23.3	24.1	24.6	23.3	24.2	23.8	24.6	25.1
6H	23.2	23.9	23.7	24.4	24.9	23.8	24.4	24.3	25.0	25.5
8H	23.3	23.9	23.8	24.4	24.9	23.9	24.5	24.4	25.0	25.5
12H	23.3	23.8	23.8	24.3	24.9	24.0	24.5	24.5	25.0	25.6
X=12H Y=4H	22.8	23.6	23.3	24.0	24.5	23.4	24.1	23.9	24.6	25.1
6H	23.2	23.8	23.7	24.3	24.8	23.8	24.4	24.3	24.9	25.5
8H	23.3	23.8	23.8	24.3	24.9	24.0	24.5	24.5	25.0	25.6

Calculate in accordance with CIE 190:2010

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

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 = 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	0.58	0.69	0.76	0.81	0.88	0.93	0.96	1.01	1.04
	0.30		0.51	0.61	0.69	0.74	0.82	0.88	0.92	0.97	1.00
	0.20		0.45	0.56	0.63	0.69	0.77	0.83	0.87	0.93	0.97
0.50	0.50	0.20	0.57	0.67	0.73	0.78	0.85	0.89	0.93	0.97	0.99
	0.30		0.50	0.60	0.67	0.72	0.80	0.85	0.89	0.93	0.96
	0.20		0.45	0.55	0.62	0.68	0.76	0.81	0.85	0.91	0.94
0.30	0.50	0.20	0.55	0.65	0.71	0.76	0.82	0.86	0.89	0.93	0.95
	0.30		0.49	0.59	0.66	0.71	0.78	0.82	0.86	0.90	0.93
	0.20		0.45	0.54	0.61	0.67	0.74	0.79	0.83	0.88	0.91
0.00	0.00	0.00	0.42	0.52	0.58	0.63	0.70	0.75	0.79	0.83	0.86
Rating: 11W 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	0.97	0.80	0.68	0.59	0.47	0.39	0.33	0.26	0.21	
	0.30		0.81	0.68	0.59	0.52	0.42	0.36	0.31	0.24	0.20	
	0.20		0.69	0.59	0.52	0.47	0.39	0.33	0.29	0.23	0.19	
0.50	0.50	0.20	0.93	0.76	0.65	0.56	0.45	0.40	0.31	0.24	0.20	
	0.30		0.79	0.66	0.57	0.50	0.41	0.34	0.29	0.23	0.19	
	0.20		0.68	0.58	0.51	0.46	0.38	0.32	0.28	0.22	0.18	
0.30	0.50	0.20	0.90	0.73	0.62	0.54	0.42	0.35	0.30	0.23	0.19	
	0.30		0.77	0.64	0.55	0.49	0.39	0.33	0.28	0.22	0.18	
	0.20		0.67	0.57	0.50	0.45	0.36	0.31	0.27	0.21	0.17	
0.00	0.00	0.00	0.57	0.47	0.41	0.36	0.29	0.24	0.21	0.16	0.13	
Rating: 11W 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	0.17	0.18	0.19	0.20	0.21	0.21	0.22	0.22	0.23
	0.30		0.10	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20
	0.20		0.06	0.07	0.09	0.10	0.12	0.14	0.15	0.17	0.18
0.50	0.50	0.20	0.16	0.18	0.19	0.19	0.20	0.20	0.21	0.21	0.22
	0.30		0.10	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.19
	0.20		0.06	0.07	0.09	0.10	0.12	0.13	0.15	0.16	0.17
0.30	0.50	0.20	0.16	0.17	0.18	0.18	0.19	0.20	0.20	0.20	0.21
	0.30		0.10	0.12	0.13	0.14	0.15	0.16	0.17	0.18	0.19
	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	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Rating: 11W 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	270.4	0.3	0.3	0.04	0.04
1.0-2.0	270.2	0.8	1.0	0.11	0.15
2.0-3.0	270.0	1.3	2.3	0.19	0.34
3.0-4.0	269.5	1.8	4.1	0.26	0.60
4.0-5.0	268.9	2.3	6.4	0.34	0.94
5.0-6.0	268.2	2.8	9.3	0.41	1.34
6.0-7.0	267.3	3.3	12.6	0.48	1.83
7.0-8.0	266.4	3.8	16.4	0.55	2.38
8.0-9.0	265.2	4.3	20.7	0.62	3.00
9.0-10.0	263.9	4.8	25.5	0.69	3.70
10.0-11.0	262.5	5.2	30.7	0.76	4.46
11.0-12.0	261.0	5.7	36.4	0.83	5.29
12.0-13.0	259.3	6.2	42.6	0.89	6.18
13.0-14.0	257.5	6.6	49.2	0.96	7.14
14.0-15.0	255.6	7.0	56.2	1.02	8.15
15.0-16.0	253.5	7.4	63.6	1.08	9.23
16.0-17.0	251.4	7.8	71.4	1.14	10.37
17.0-18.0	249.1	8.2	79.7	1.19	11.56
18.0-19.0	246.7	8.6	88.2	1.25	12.81
19.0-20.0	244.3	8.9	97.2	1.30	14.10
20.0-21.0	241.8	9.3	106.5	1.35	15.45
21.0-22.0	239.1	9.6	116.1	1.39	16.85
22.0-23.0	236.5	9.9	126.0	1.44	18.29
23.0-24.0	233.8	10.2	136.2	1.48	19.77
24.0-25.0	230.9	10.5	146.7	1.52	21.29
25.0-26.0	227.8	10.8	157.5	1.56	22.85
26.0-27.0	224.5	11.0	168.5	1.59	24.45
27.0-28.0	221.2	11.2	179.7	1.63	26.07
28.0-29.0	217.8	11.4	191.1	1.65	27.73
29.0-30.0	214.5	11.6	202.6	1.68	29.41
30.0-31.0	211.1	11.8	214.4	1.71	31.11
31.0-32.0	207.7	11.9	226.3	1.73	32.84
32.0-33.0	204.3	12.0	238.3	1.75	34.59
33.0-34.0	200.8	12.2	250.5	1.76	36.35
34.0-35.0	197.4	12.3	262.8	1.78	38.13
35.0-36.0	193.8	12.3	275.1	1.79	39.92

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

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	190.0	12.4	287.5	1.80	41.72
37.0-38.0	186.2	12.4	299.9	1.80	43.52
38.0-39.0	182.4	12.5	312.4	1.81	45.33
39.0-40.0	178.7	12.5	324.8	1.81	47.14
40.0-41.0	175.0	12.5	337.3	1.81	48.95
41.0-42.0	171.3	12.4	349.7	1.81	50.75
42.0-43.0	167.4	12.4	362.1	1.80	52.55
43.0-44.0	163.4	12.3	374.5	1.79	54.34
44.0-45.0	159.5	12.3	386.7	1.78	56.12
45.0-46.0	155.6	12.2	398.9	1.77	57.89
46.0-47.0	151.5	12.1	411.0	1.75	59.64
47.0-48.0	147.6	11.9	422.9	1.73	61.37
48.0-49.0	143.7	11.8	434.7	1.71	63.08
49.0-50.0	139.8	11.7	446.4	1.69	64.78
50.0-51.0	135.8	11.5	457.9	1.67	66.44
51.0-52.0	131.9	11.3	469.2	1.64	68.09
52.0-53.0	128.0	11.1	480.3	1.62	69.70
53.0-54.0	124.0	10.9	491.2	1.59	71.29
54.0-55.0	119.9	10.7	502.0	1.55	72.84
55.0-56.0	115.9	10.5	512.4	1.52	74.36
56.0-57.0	112.0	10.2	522.7	1.49	75.85
57.0-58.0	108.0	10.0	532.7	1.45	77.30
58.0-59.0	104.0	9.7	542.4	1.41	78.71
59.0-60.0	99.9	9.4	551.8	1.37	80.08
60.0-61.0	96.0	9.2	561.0	1.33	81.41
61.0-62.0	92.0	8.9	569.9	1.29	82.70
62.0-63.0	88.0	8.6	578.4	1.24	83.94
63.0-64.0	84.0	8.2	586.7	1.20	85.14
64.0-65.0	80.1	7.9	594.6	1.15	86.29
65.0-66.0	76.1	7.6	602.2	1.10	87.39
66.0-67.0	72.2	7.3	609.4	1.05	88.44
67.0-68.0	68.3	6.9	616.4	1.00	89.45
68.0-69.0	64.4	6.6	622.9	0.95	90.40
69.0-70.0	60.5	6.2	629.1	0.90	91.30
70.0-71.0	56.6	5.8	635.0	0.85	92.15
71.0-72.0	52.8	5.5	640.5	0.80	92.95

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

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	49.0	5.1	645.6	0.74	93.69
73.0-74.0	45.2	4.8	650.4	0.69	94.38
74.0-75.0	41.6	4.4	654.7	0.64	95.02
75.0-76.0	37.9	4.0	658.8	0.58	95.60
76.0-77.0	34.4	3.7	662.4	0.53	96.13
77.0-78.0	30.9	3.3	665.7	0.48	96.61
78.0-79.0	27.5	3.0	668.7	0.43	97.04
79.0-80.0	24.2	2.6	671.3	0.38	97.42
80.0-81.0	21.0	2.3	673.6	0.33	97.75
81.0-82.0	18.0	1.9	675.5	0.28	98.03
82.0-83.0	15.1	1.6	677.2	0.24	98.27
83.0-84.0	12.3	1.3	678.5	0.19	98.47
84.0-85.0	9.8	1.1	679.6	0.16	98.62
85.0-86.0	7.5	0.8	680.4	0.12	98.74
86.0-87.0	5.6	0.6	681.0	0.09	98.83
87.0-88.0	3.9	0.4	681.4	0.06	98.89
88.0-89.0	2.6	0.3	681.7	0.04	98.93
89.0-90.0	1.6	0.2	681.9	0.03	98.96
90.0-91.0	1.0	0.1	682.0	0.02	98.97
91.0-92.0	0.6	0.1	682.1	0.01	98.98
92.0-93.0	0.4	0.0	682.1	0.01	98.99
93.0-94.0	0.3	0.0	682.2	0.01	98.99
94.0-95.0	0.4	0.0	682.2	0.01	99.00
95.0-96.0	0.4	0.0	682.2	0.01	99.01
96.0-97.0	0.4	0.0	682.3	0.01	99.01
97.0-98.0	0.4	0.0	682.3	0.01	99.02
98.0-99.0	0.4	0.0	682.4	0.01	99.03
99.0-100.0	0.4	0.0	682.4	0.01	99.03
100.0-101.0	0.5	0.1	682.5	0.01	99.04
101.0-102.0	0.5	0.1	682.5	0.01	99.05
102.0-103.0	0.5	0.1	682.6	0.01	99.06
103.0-104.0	0.6	0.1	682.6	0.01	99.06
104.0-105.0	0.6	0.1	682.7	0.01	99.07
105.0-106.0	0.6	0.1	682.8	0.01	99.08
106.0-107.0	0.6	0.1	682.8	0.01	99.09
107.0-108.0	0.7	0.1	682.9	0.01	99.10

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

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	0.7	0.1	683.0	0.01	99.11
109.0-110.0	0.7	0.1	683.1	0.01	99.12
110.0-111.0	0.8	0.1	683.1	0.01	99.14
111.0-112.0	0.8	0.1	683.2	0.01	99.15
112.0-113.0	0.8	0.1	683.3	0.01	99.16
113.0-114.0	0.8	0.1	683.4	0.01	99.17
114.0-115.0	0.9	0.1	683.5	0.01	99.18
115.0-116.0	0.9	0.1	683.6	0.01	99.20
116.0-117.0	1.0	0.1	683.6	0.01	99.21
117.0-118.0	1.0	0.1	683.7	0.01	99.22
118.0-119.0	1.0	0.1	683.8	0.01	99.24
119.0-120.0	1.0	0.1	683.9	0.01	99.25
120.0-121.0	1.1	0.1	684.0	0.01	99.27
121.0-122.0	1.1	0.1	684.1	0.01	99.28
122.0-123.0	1.1	0.1	684.2	0.01	99.30
123.0-124.0	1.2	0.1	684.4	0.02	99.31
124.0-125.0	1.2	0.1	684.5	0.02	99.33
125.0-126.0	1.2	0.1	684.6	0.02	99.34
126.0-127.0	1.2	0.1	684.7	0.02	99.36
127.0-128.0	1.3	0.1	684.8	0.02	99.38
128.0-129.0	1.3	0.1	684.9	0.02	99.39
129.0-130.0	1.4	0.1	685.0	0.02	99.41
130.0-131.0	1.4	0.1	685.1	0.02	99.43
131.0-132.0	1.4	0.1	685.3	0.02	99.44
132.0-133.0	1.4	0.1	685.4	0.02	99.46
133.0-134.0	1.5	0.1	685.5	0.02	99.48
134.0-135.0	1.5	0.1	685.6	0.02	99.49
135.0-136.0	1.5	0.1	685.7	0.02	99.51
136.0-137.0	1.6	0.1	685.8	0.02	99.53
137.0-138.0	1.6	0.1	686.0	0.02	99.55
138.0-139.0	1.6	0.1	686.1	0.02	99.56
139.0-140.0	1.6	0.1	686.2	0.02	99.58
140.0-141.0	1.7	0.1	686.3	0.02	99.60
141.0-142.0	1.7	0.1	686.4	0.02	99.61
142.0-143.0	1.7	0.1	686.5	0.02	99.63
143.0-144.0	1.8	0.1	686.6	0.02	99.65

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

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	1.8	0.1	686.8	0.02	99.66
145.0-146.0	1.8	0.1	686.9	0.02	99.68
146.0-147.0	1.8	0.1	687.0	0.02	99.69
147.0-148.0	1.9	0.1	687.1	0.02	99.71
148.0-149.0	1.9	0.1	687.2	0.02	99.73
149.0-150.0	1.9	0.1	687.3	0.02	99.74
150.0-151.0	1.9	0.1	687.4	0.02	99.76
151.0-152.0	2.0	0.1	687.5	0.01	99.77
152.0-153.0	2.0	0.1	687.6	0.01	99.79
153.0-154.0	2.0	0.1	687.7	0.01	99.80
154.0-155.0	2.0	0.1	687.8	0.01	99.81
155.0-156.0	2.0	0.1	687.9	0.01	99.83
156.0-157.0	2.1	0.1	688.0	0.01	99.84
157.0-158.0	2.1	0.1	688.1	0.01	99.85
158.0-159.0	2.1	0.1	688.2	0.01	99.87
159.0-160.0	2.1	0.1	688.2	0.01	99.88
160.0-161.0	2.2	0.1	688.3	0.01	99.89
161.0-162.0	2.2	0.1	688.4	0.01	99.90
162.0-163.0	2.2	0.1	688.5	0.01	99.91
163.0-164.0	2.2	0.1	688.5	0.01	99.92
164.0-165.0	2.2	0.1	688.6	0.01	99.93
165.0-166.0	2.2	0.1	688.7	0.01	99.94
166.0-167.0	2.2	0.1	688.7	0.01	99.95
167.0-168.0	2.2	0.1	688.8	0.01	99.95
168.0-169.0	2.2	0.0	688.8	0.01	99.96
169.0-170.0	2.2	0.0	688.9	0.01	99.97
170.0-171.0	2.2	0.0	688.9	0.01	99.97
171.0-172.0	2.3	0.0	688.9	0.01	99.98
172.0-173.0	2.3	0.0	689.0	0.00	99.98
173.0-174.0	2.3	0.0	689.0	0.00	99.99
174.0-175.0	2.3	0.0	689.0	0.00	99.99
175.0-176.0	2.3	0.0	689.1	0.00	99.99
176.0-177.0	2.3	0.0	689.1	0.00	100.00
177.0-178.0	2.4	0.0	689.1	0.00	100.00
178.0-179.0	2.4	0.0	689.1	0.00	100.00
179.0-180.0	2.4	0.0	689.1	0.00	100.00

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

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