

Report No.:

Test Time: 2023/9/1 12:09

## Luminaire Property

Luminaire Manufacturer: ACOLYTE

Luminaire Category: CHANNEL

Luminaire Description: CHAC5C90SWS2203.030

Luminous Length (mm): 500

Luminous Width (mm): 30

Luminous Height (mm): 30

Voltage: 24.0 V

Current: 0.204 A

Power: 4.91 W

Power Factor: 1.000

## Photometric Results

CIE Class: Semi-Direct

Total Rated Lamp Lumens: 472.6 lm

Measurement Flux: 472.6 lm

Efficiency: 100%

Downward Ratio: 90%

Upward Ratio: 10%

Horizontal Diffuse Angle(10%,50%): H148,H101.8

Vertical Diffuse Angle(10%,50%): V126.7,V115.3

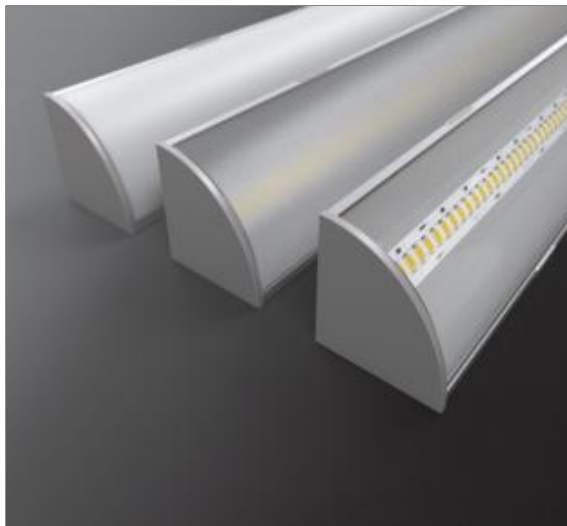
Luminaire Efficacy Rating (LER): 96

Central Intensity: 132.49 cd

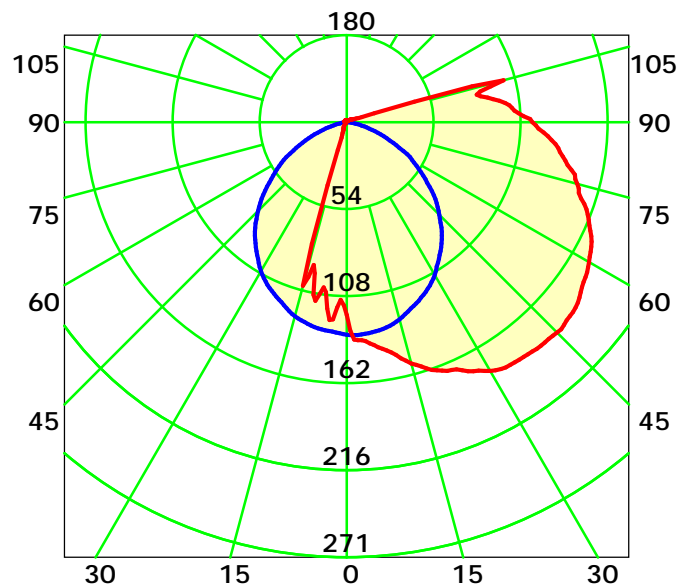
Max. Intensity: 185.68 cd

Pos of Max. Intensity: H90 V46

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 108.6° Unit: cd

— 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

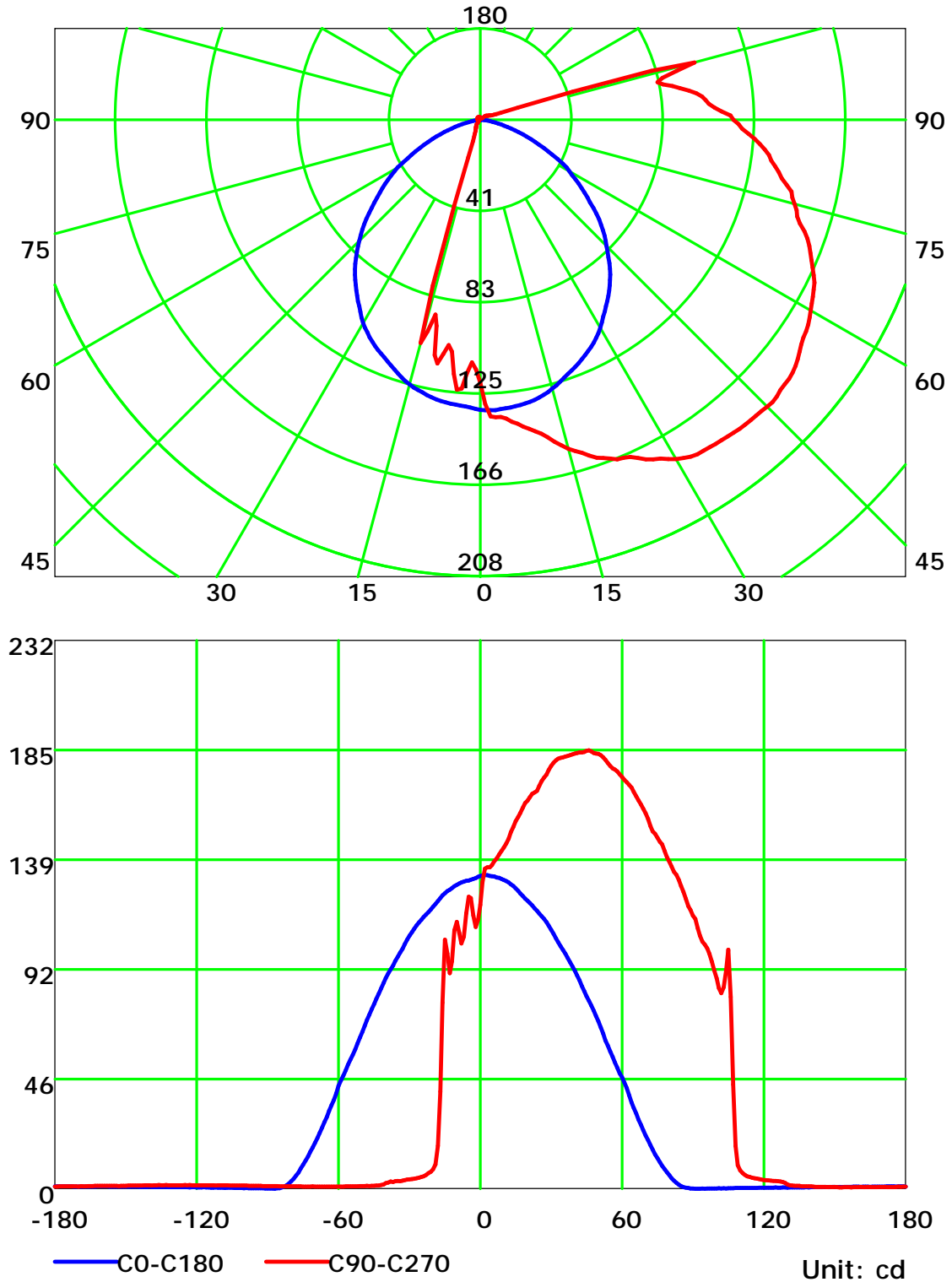
Distance: 9.028 m

Humidity: 60%

Inspector:



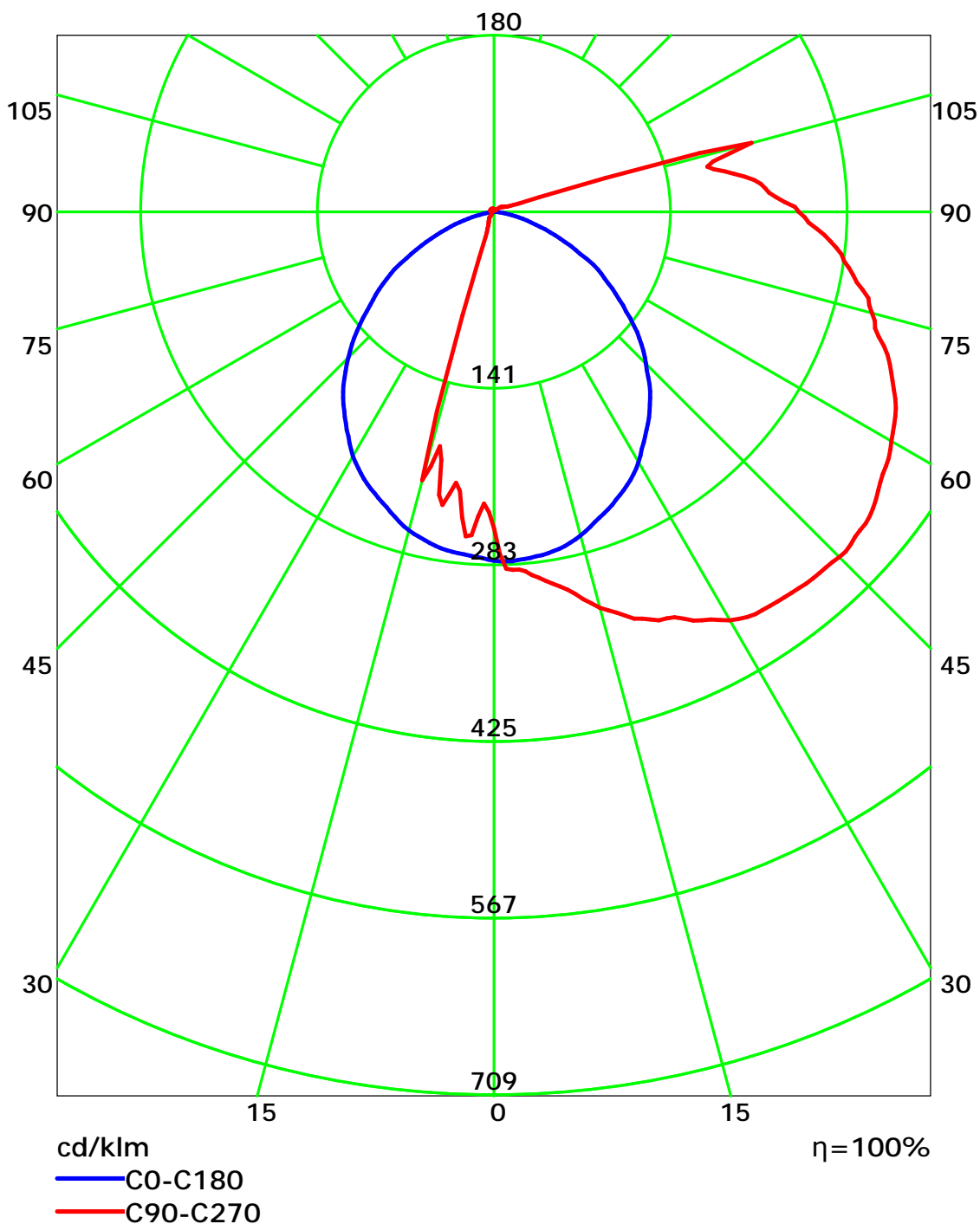
## Luminous Intensity Distribution Curve



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:

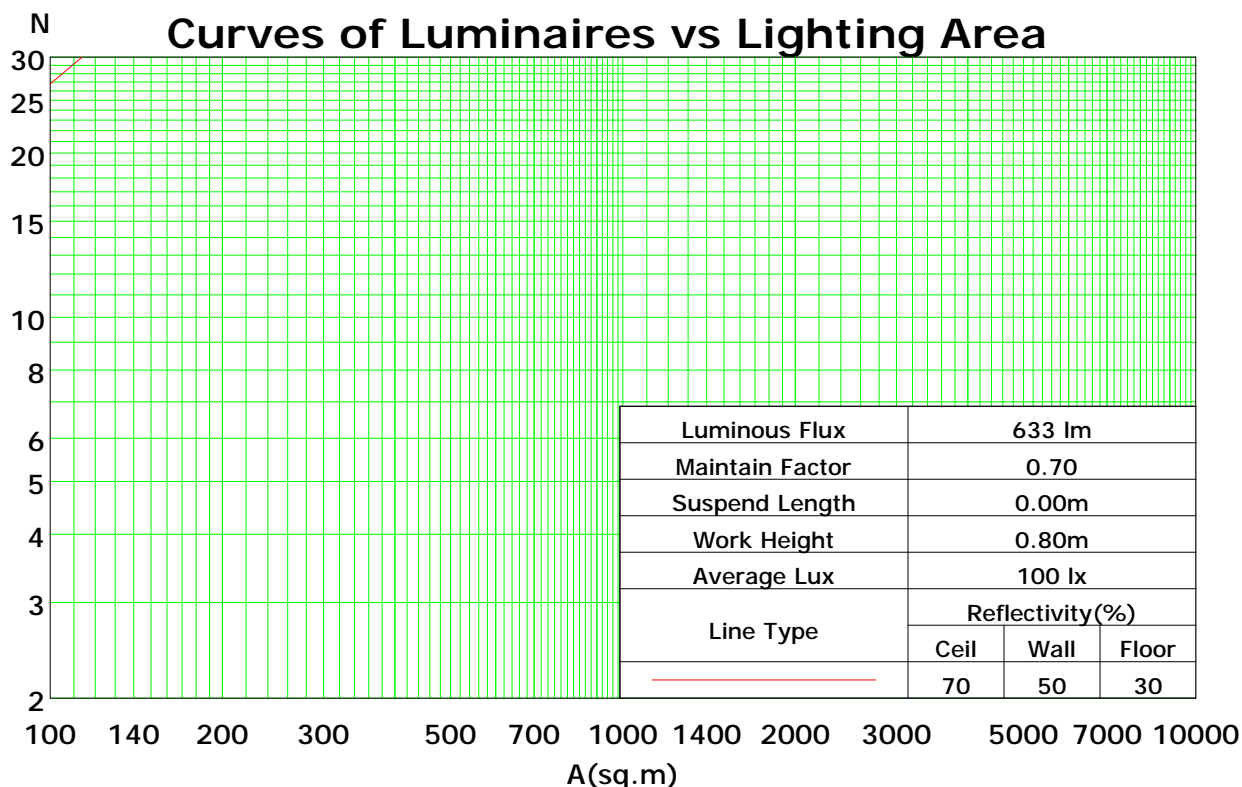
## Coefficients Of Utilization - Zonal Cavity Method

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	117	117	117	117	113	113	113	113	105	105	105	99	99	99	93	93	93	90
1	103	97	91	86	99	93	88	84	87	83	79	81	78	75	76	73	71	68
2	92	82	74	68	88	80	72	66	74	68	63	69	64	60	65	61	57	54
3	83	71	62	55	80	69	60	54	64	57	51	60	54	49	56	51	47	44
4	76	63	53	46	73	61	52	45	57	49	43	53	47	41	50	44	40	37
5	70	56	46	39	67	54	45	38	51	43	37	48	41	35	45	39	34	32
6	64	50	40	34	62	49	40	33	46	38	32	43	36	31	40	34	30	27
7	59	45	36	30	57	44	35	29	41	34	28	39	32	27	37	31	26	24
8	55	41	32	26	53	40	32	26	38	30	25	36	29	24	34	28	24	21
9	52	38	29	23	50	37	29	23	35	28	22	33	27	22	31	25	21	19
10	48	35	27	21	47	34	26	21	32	25	20	31	24	20	29	23	19	17

Spacing Criteria (0-180): 1.22

Spacing Criteria (90-270): 1.13

Spacing Criteria (Diagonal): 1.24



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

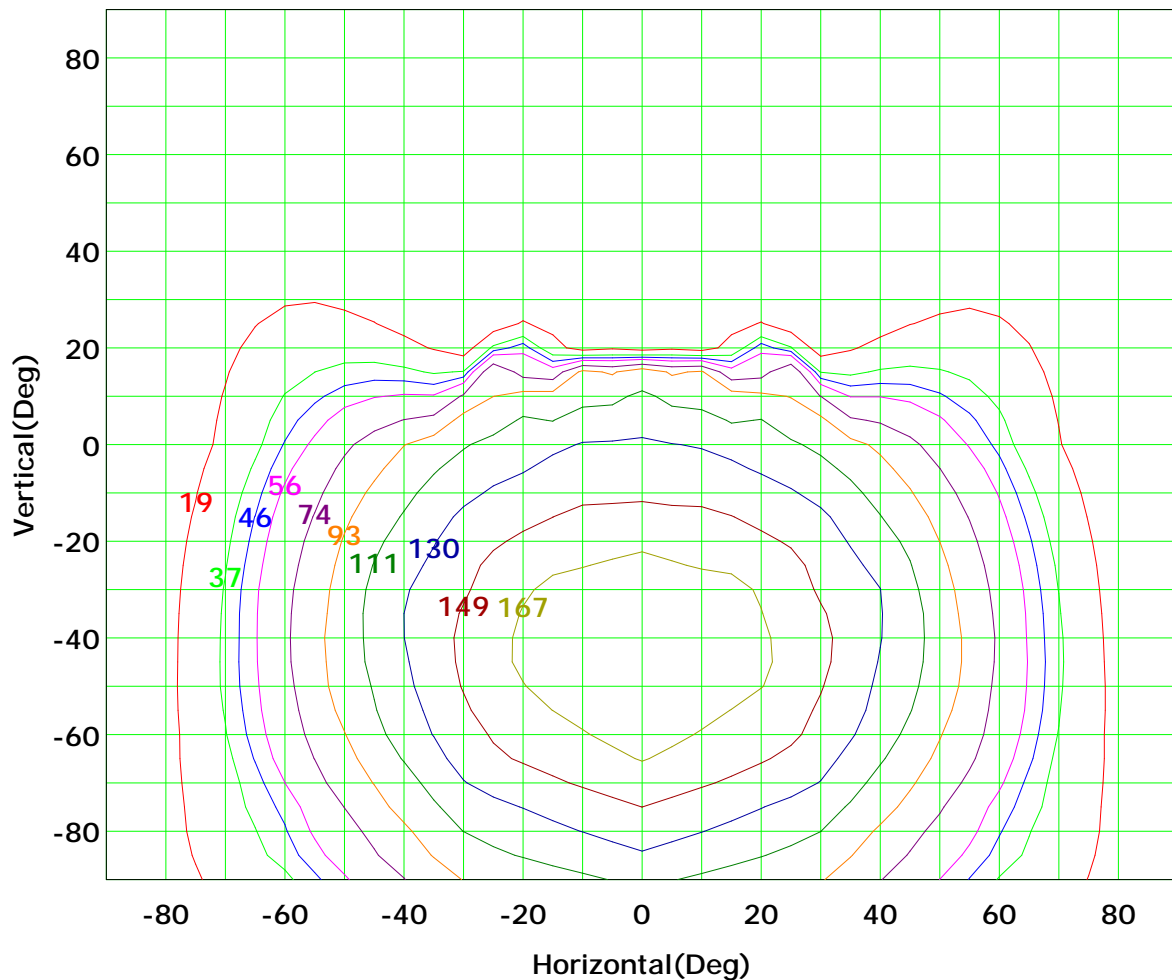
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Isocandela (rectangle)



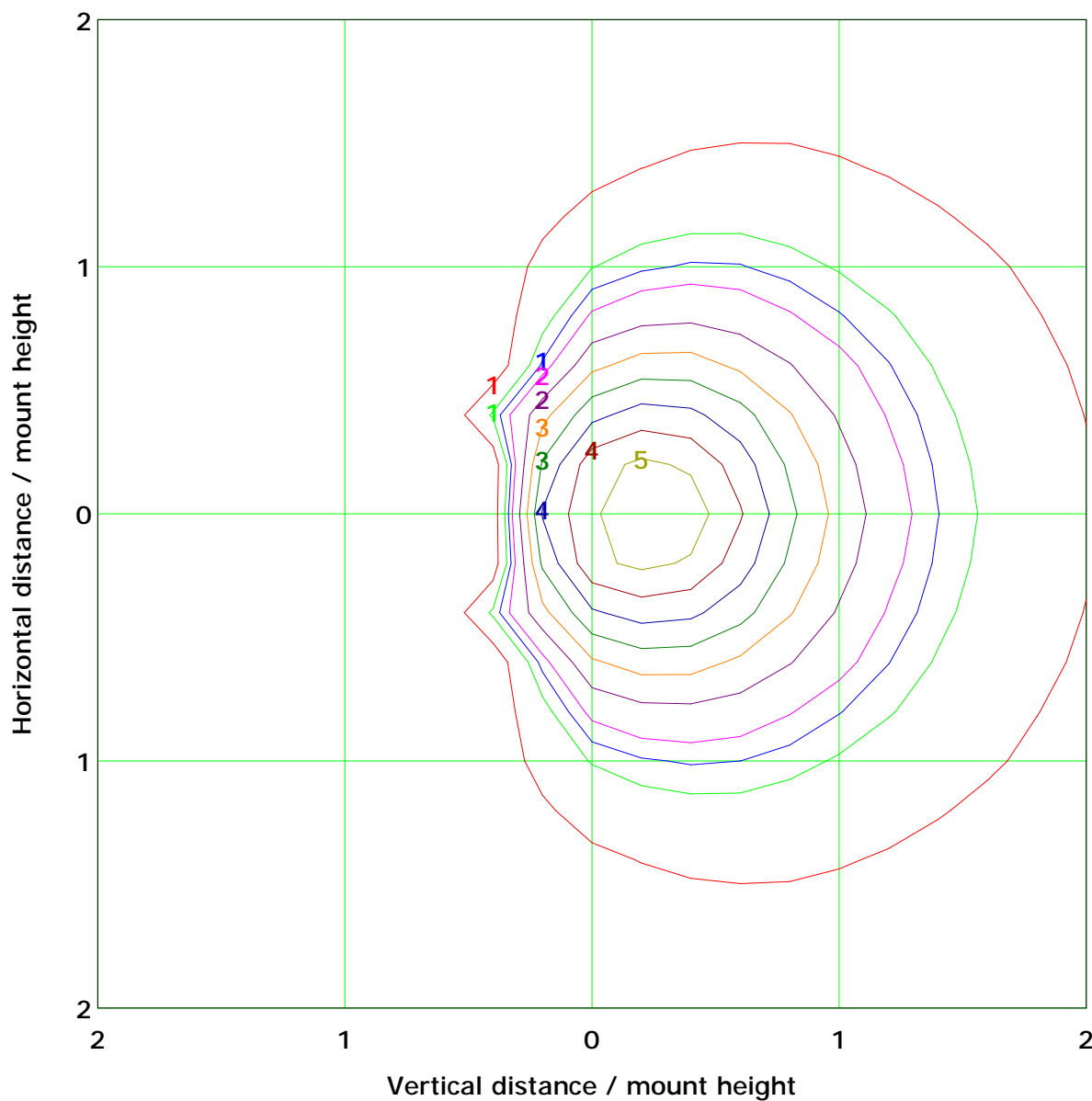
I<sub>max</sub> (100%): 186 cd

( 10%):	19 cd	( 20%):	37 cd
( 25%):	46 cd	( 30%):	56 cd
( 40%):	74 cd	( 50%):	93 cd
( 60%):	111 cd	( 70%):	130 cd
( 80%):	149 cd	( 90%):	167 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%): 5.6 lx	
( 10%): 0.6 lx	( 20%): 1.1 lx
( 25%): 1.4 lx	( 30%): 1.7 lx
( 40%): 2.2 lx	( 50%): 2.8 lx
( 60%): 3.4 lx	( 70%): 3.9 lx
( 80%): 4.5 lx	( 90%): 5.0 lx

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

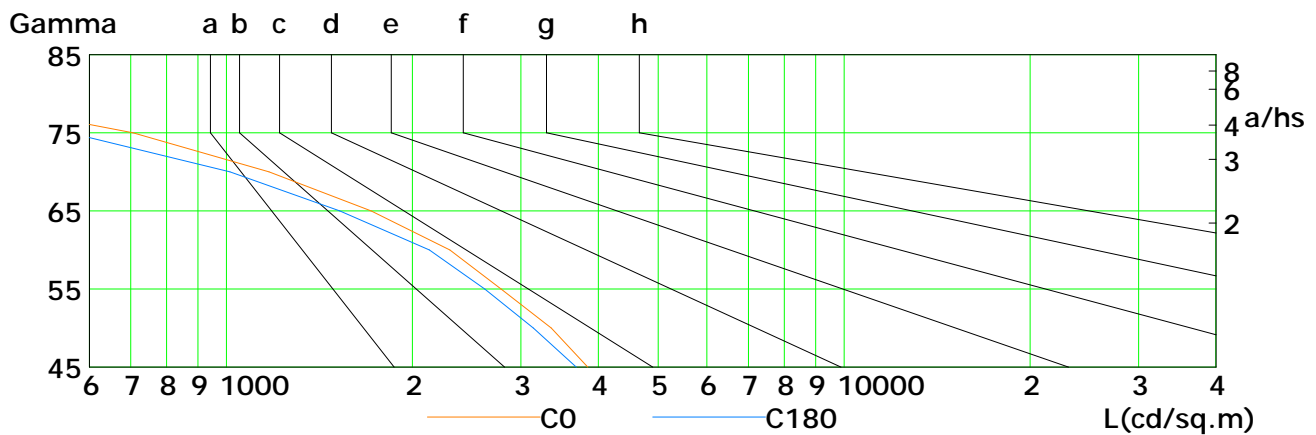
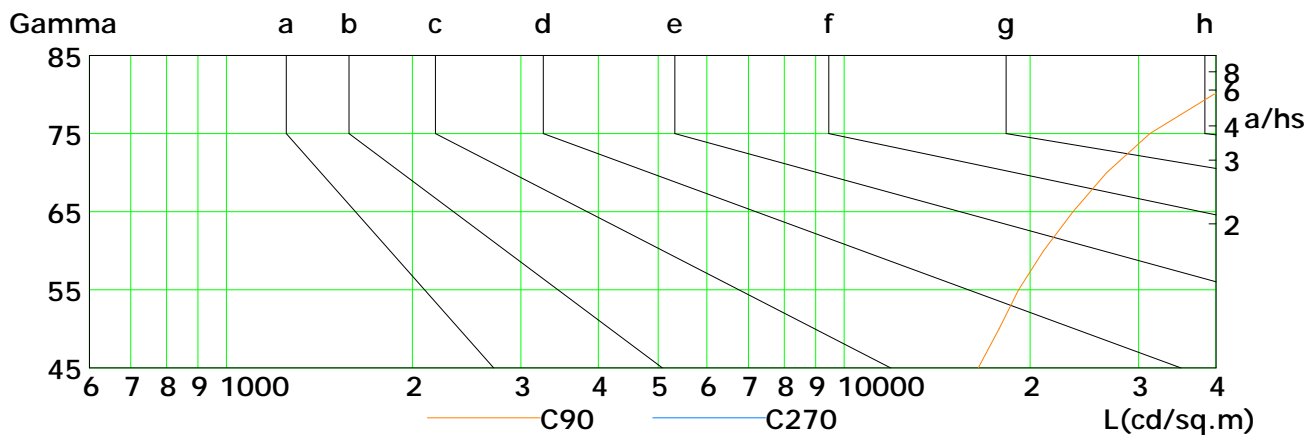
Gamma Plane (°):0.0-180.0:1.0  
Test Device: GPM-1800B  
Distance: 9.028 m  
Humidity: 60%  
Inspector:



## 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

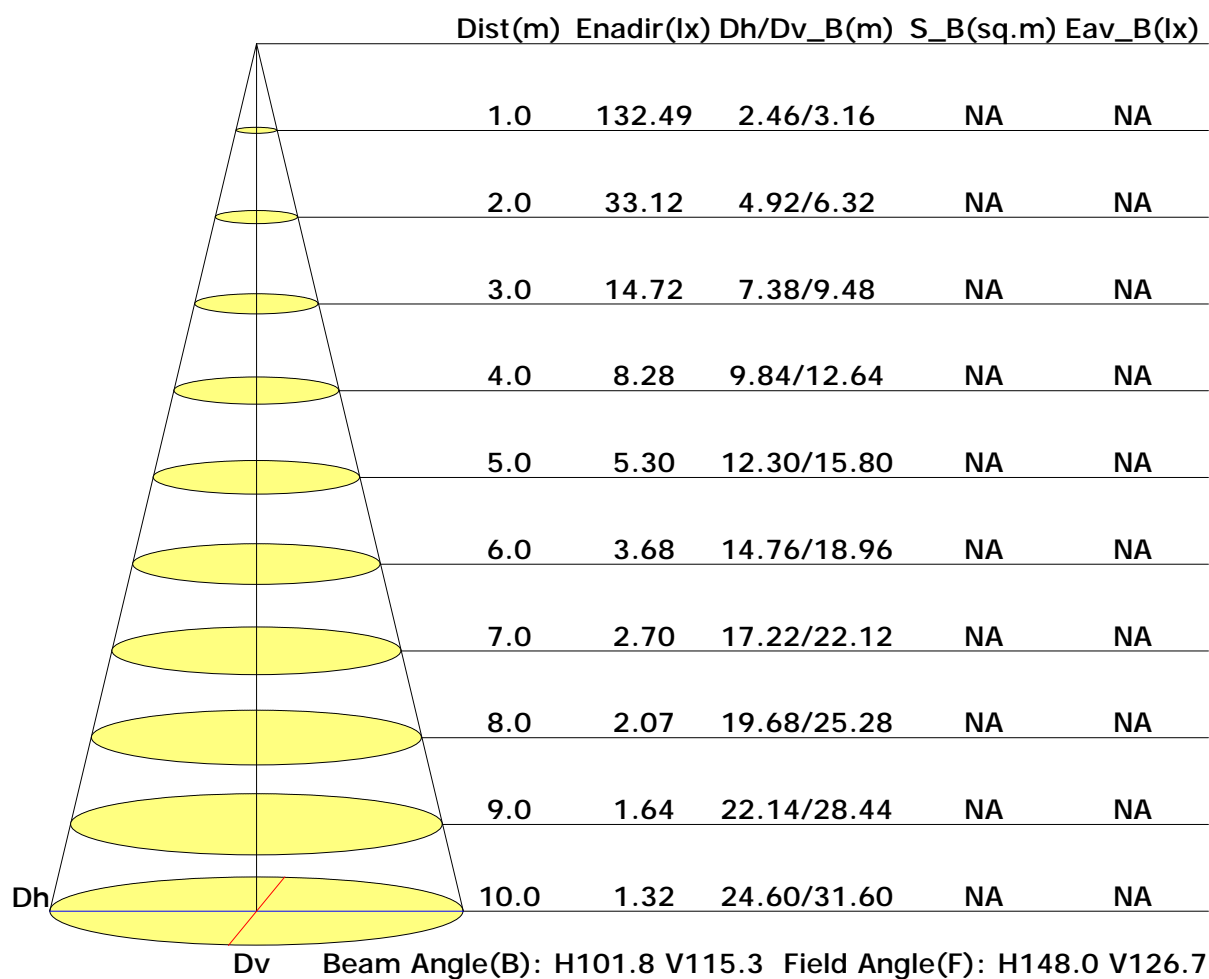


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	3846	3357	2785	2300	1716	1172	706	334	73
C90	16488	17827	19163	21047	23490	26601	31274	39650	58197
C180	3687	3143	2621	2131	1527	1013	560	188	18
C270	117	111	111	122	131	164	215	312	513

C Plane (°):0.0-360.0: 30.0  
Test Lab:  
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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

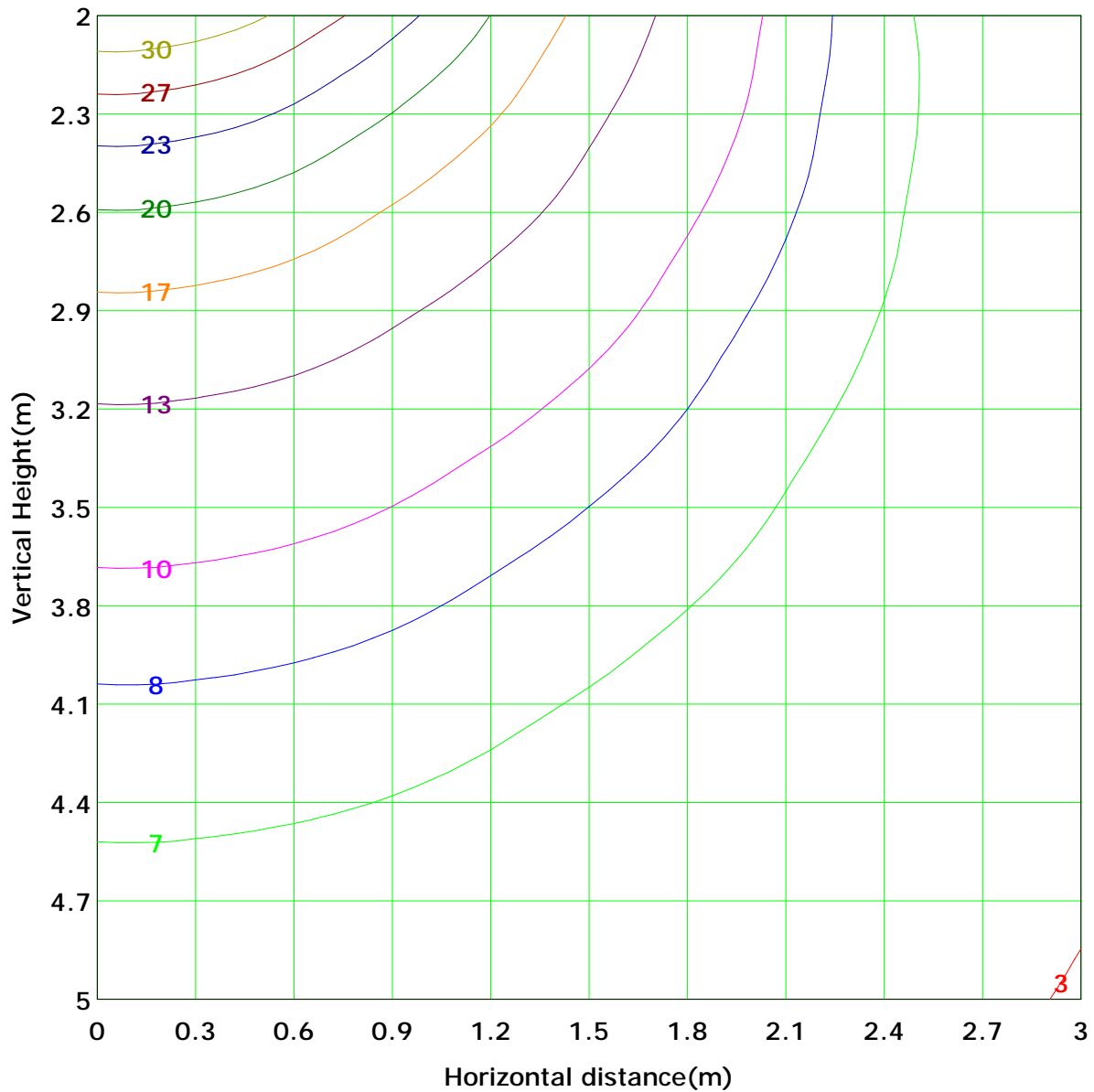


C Plane (°):0.0-360.0: 30.0  
Test Lab:  
Test Type: TYPE C  
Temperature: 25  
Operator: Nick

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



## Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 33.2 lx
( 10%): 3.3 lx	( 20%): 6.6 lx	
( 25%): 8.3 lx	( 30%): 9.9 lx	
( 40%): 13.3 lx	( 50%): 16.6 lx	
( 60%): 19.9 lx	( 70%): 23.2 lx	
( 80%): 26.5 lx	( 90%): 29.8 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:

## Area Flux Table

Unit: lm

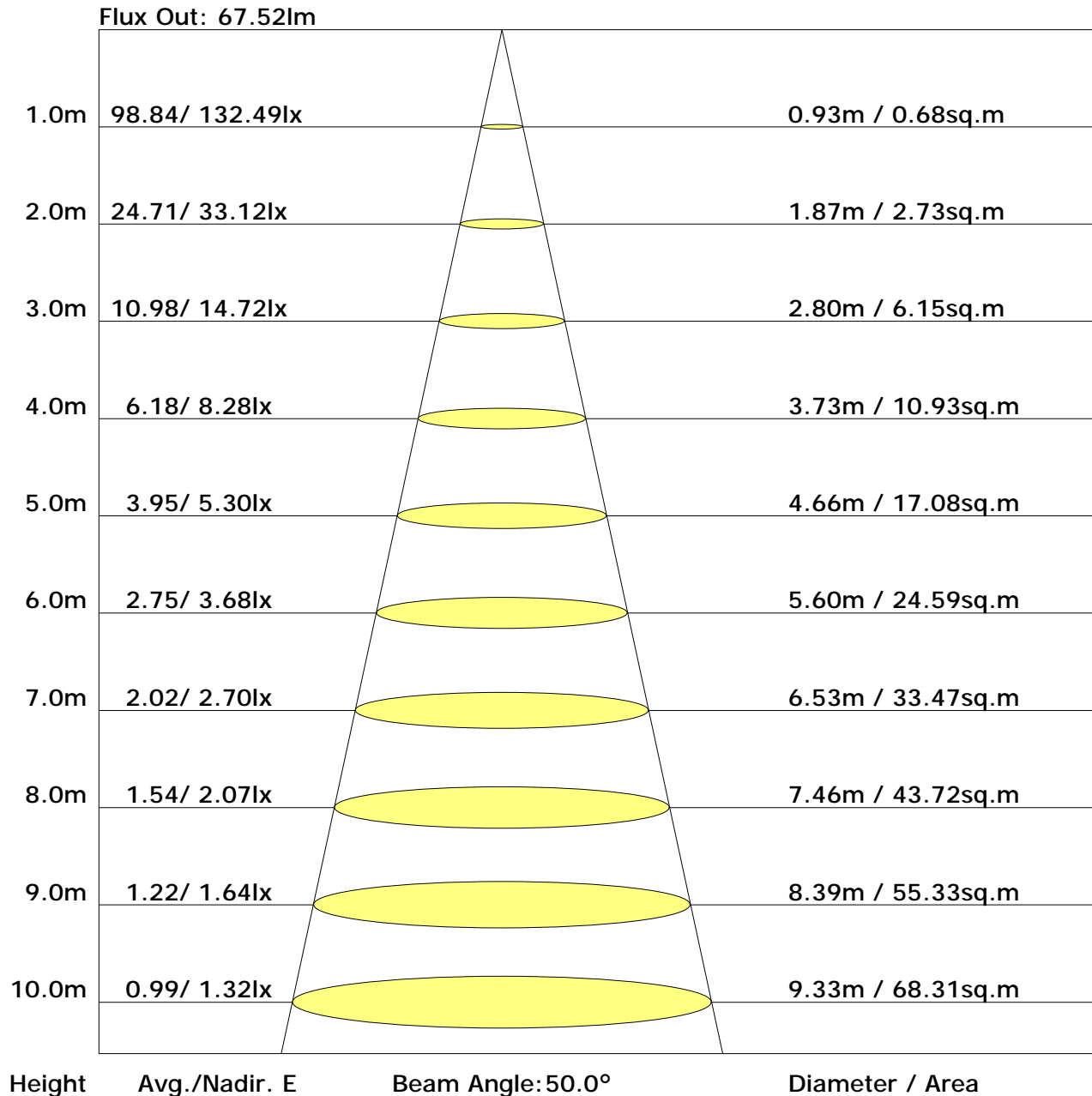
		Vertical plane																		Flux(T)		Flux(E)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
		-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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: Nick

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	19.2	20.7	19.7	21.3	21.8	24.2	25.7	24.7	26.2	26.8
3H	20.7	22.1	21.3	22.7	23.3	26.7	28.2	27.3	28.7	29.3
4H	21.2	22.5	21.7	23.1	23.7	27.9	29.3	28.5	29.8	30.4
6H	21.4	22.7	22.0	23.3	23.9	29.1	30.3	29.6	30.9	31.5
8H	21.5	22.7	22.1	23.3	23.9	29.6	30.8	30.2	31.4	32.0
12H	21.5	22.7	22.1	23.2	23.9	30.1	31.3	30.7	31.9	32.5
X=4H Y=2H	20.5	21.8	21.0	22.3	22.9	24.7	26.1	25.3	26.6	27.2
3H	22.3	23.5	22.9	24.1	24.7	27.6	28.8	28.2	29.3	30.0
4H	23.0	24.1	23.6	24.7	25.3	28.9	30.0	29.5	30.6	31.3
6H	23.5	24.4	24.1	25.1	25.7	30.3	31.2	30.9	31.9	32.5
8H	23.6	24.5	24.2	25.1	25.8	30.9	31.8	31.5	32.4	33.1
12H	23.7	24.5	24.3	25.1	25.8	31.6	32.4	32.2	33.0	33.7
X=8H Y=4H	24.0	24.9	24.6	25.5	26.2	29.3	30.2	29.9	30.8	31.5
6H	24.7	25.5	25.4	26.2	26.9	30.8	31.6	31.5	32.3	33.0
8H	25.0	25.7	25.7	26.4	27.1	31.6	32.3	32.3	33.0	33.7
12H	25.2	25.9	25.9	26.5	27.3	32.5	33.1	33.1	33.8	34.5
X=12H Y=4H	24.2	25.1	24.9	25.7	26.4	29.3	30.1	29.9	30.8	31.5
6H	25.2	25.9	25.8	26.5	27.2	30.9	31.6	31.6	32.3	33.0
8H	25.5	26.2	26.2	26.8	27.6	31.8	32.4	32.5	33.1	33.9

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	0.48	0.57	0.64	0.69	0.77	0.82	0.86	0.91	0.94	
	0.30		0.39	0.49	0.56	0.61	0.69	0.75	0.79	0.85	0.90	
	0.20		0.33	0.42	0.49	0.55	0.63	0.69	0.74	0.81	0.85	
0.50	0.50	0.20	0.45	0.54	0.60	0.65	0.72	0.77	0.80	0.85	0.88	
	0.30		0.38	0.46	0.53	0.58	0.66	0.71	0.75	0.80	0.84	
	0.20		0.32	0.41	0.47	0.52	0.60	0.66	0.70	0.76	0.81	
0.30	0.50	0.20	0.43	0.51	0.57	0.61	0.67	0.72	0.75	0.79	0.82	
	0.30		0.36	0.44	0.50	0.55	0.62	0.67	0.71	0.76	0.79	
	0.20		0.31	0.39	0.46	0.50	0.58	0.63	0.67	0.72	0.76	
0.00	0.00	0.00	0.28	0.36	0.41	0.46	0.52	0.57	0.61	0.66	0.69	
Rating:5W 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	1.07	0.92	0.80	0.71	0.59	0.50	0.44	0.35	0.30
	0.30		0.90	0.78	0.70	0.63	0.53	0.46	0.41	0.33	0.28
	0.20		0.77	0.68	0.62	0.57	0.49	0.43	0.38	0.31	0.27
0.50	0.50	0.20	1.02	0.86	0.76	0.67	0.56	0.50	0.42	0.33	0.28
	0.30		0.86	0.75	0.67	0.60	0.51	0.44	0.39	0.32	0.27
	0.20		0.75	0.66	0.60	0.55	0.47	0.41	0.37	0.30	0.26
0.30	0.50	0.20	0.97	0.82	0.71	0.64	0.53	0.45	0.39	0.32	0.27
	0.30		0.83	0.72	0.64	0.58	0.49	0.42	0.37	0.30	0.26
	0.20		0.72	0.64	0.58	0.53	0.45	0.39	0.35	0.29	0.25
0.00	0.00	0.00	0.62	0.54	0.48	0.44	0.37	0.33	0.29	0.24	0.21
Rating:5W 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	0.27	0.29	0.30	0.30	0.31	0.32	0.32	0.32	0.33	
	0.30		0.20	0.21	0.23	0.24	0.25	0.26	0.27	0.28	0.29	
	0.20		0.15	0.16	0.17	0.18	0.20	0.22	0.23	0.25	0.26	
0.50	0.50	0.20	0.26	0.28	0.29	0.29	0.30	0.30	0.31	0.31	0.31	
	0.30		0.20	0.21	0.22	0.23	0.24	0.25	0.26	0.27	0.28	
	0.20		0.15	0.16	0.17	0.18	0.20	0.21	0.22	0.24	0.25	
0.30	0.50	0.20	0.26	0.27	0.28	0.28	0.29	0.29	0.29	0.30	0.30	
	0.30		0.19	0.21	0.22	0.23	0.24	0.25	0.25	0.26	0.27	
	0.20		0.14	0.16	0.17	0.18	0.19	0.21	0.22	0.23	0.24	
0.00	0.00	0.00	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	
Rating:5W 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	125.6	0.1	0.1	0.03	0.03
1.0-2.0	125.8	0.4	0.5	0.08	0.10
2.0-3.0	125.9	0.6	1.1	0.13	0.23
3.0-4.0	126.5	0.8	1.9	0.18	0.41
4.0-5.0	127.4	1.1	3.0	0.23	0.64
5.0-6.0	127.6	1.3	4.4	0.28	0.92
6.0-7.0	126.8	1.6	5.9	0.33	1.26
7.0-8.0	125.7	1.8	7.7	0.38	1.64
8.0-9.0	125.6	2.0	9.8	0.43	2.07
9.0-10.0	126.5	2.3	12.1	0.48	2.55
10.0-11.0	127.5	2.5	14.6	0.54	3.09
11.0-12.0	127.5	2.8	17.4	0.59	3.68
12.0-13.0	126.4	3.0	20.4	0.63	4.32
13.0-14.0	124.7	3.2	23.6	0.68	4.99
14.0-15.0	123.3	3.4	27.0	0.72	5.71
15.0-16.0	122.1	3.6	30.6	0.76	6.47
16.0-17.0	120.7	3.8	34.3	0.80	7.26
17.0-18.0	118.6	3.9	38.2	0.83	8.09
18.0-19.0	114.5	4.0	42.2	0.84	8.93
19.0-20.0	109.3	4.0	46.2	0.85	9.78
20.0-21.0	105.4	4.0	50.3	0.86	10.64
21.0-22.0	103.0	4.1	54.4	0.88	11.51
22.0-23.0	101.2	4.2	58.7	0.90	12.41
23.0-24.0	99.8	4.4	63.0	0.92	13.33
24.0-25.0	99.1	4.5	67.5	0.95	14.29
25.0-26.0	98.8	4.7	72.2	0.99	15.27
26.0-27.0	99.0	4.8	77.0	1.02	16.30
27.0-28.0	99.8	5.1	82.1	1.07	17.37
28.0-29.0	100.5	5.3	87.3	1.11	18.48
29.0-30.0	99.9	5.4	92.7	1.14	19.62
30.0-31.0	97.3	5.4	98.1	1.15	20.77
31.0-32.0	93.7	5.4	103.5	1.14	21.90
32.0-33.0	90.5	5.3	108.8	1.13	23.03
33.0-34.0	88.2	5.3	114.2	1.13	24.16
34.0-35.0	86.7	5.4	119.6	1.14	25.30
35.0-36.0	85.9	5.5	125.0	1.16	26.46

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	85.2	5.6	130.6	1.18	27.63
37.0-38.0	84.6	5.6	136.2	1.19	28.83
38.0-39.0	83.9	5.7	142.0	1.21	30.04
39.0-40.0	83.2	5.8	147.8	1.23	31.27
40.0-41.0	82.5	5.9	153.6	1.24	32.51
41.0-42.0	81.9	6.0	159.6	1.26	33.77
42.0-43.0	81.4	6.0	165.6	1.28	35.05
43.0-44.0	80.9	6.1	171.7	1.29	36.34
44.0-45.0	80.3	6.2	177.9	1.31	37.64
45.0-46.0	79.6	6.2	184.1	1.32	38.96
46.0-47.0	79.0	6.3	190.4	1.33	40.29
47.0-48.0	78.4	6.3	196.7	1.34	41.63
48.0-49.0	77.7	6.4	203.1	1.35	42.98
49.0-50.0	77.0	6.4	209.5	1.36	44.34
50.0-51.0	76.1	6.4	216.0	1.36	45.70
51.0-52.0	75.2	6.5	222.4	1.36	47.07
52.0-53.0	74.2	6.5	228.9	1.37	48.43
53.0-54.0	73.2	6.5	235.3	1.37	49.80
54.0-55.0	72.2	6.4	241.8	1.36	51.16
55.0-56.0	71.1	6.4	248.2	1.36	52.52
56.0-57.0	70.0	6.4	254.6	1.35	53.88
57.0-58.0	68.9	6.4	261.0	1.35	55.23
58.0-59.0	67.8	6.3	267.3	1.34	56.57
59.0-60.0	66.8	6.3	273.7	1.34	57.91
60.0-61.0	65.9	6.3	279.9	1.33	59.24
61.0-62.0	64.8	6.2	286.2	1.32	60.56
62.0-63.0	63.6	6.2	292.4	1.31	61.87
63.0-64.0	62.4	6.1	298.5	1.30	63.16
64.0-65.0	61.3	6.1	304.6	1.28	64.45
65.0-66.0	60.2	6.0	310.6	1.27	65.72
66.0-67.0	59.0	5.9	316.5	1.26	66.97
67.0-68.0	57.8	5.9	322.4	1.24	68.21
68.0-69.0	56.5	5.8	328.1	1.22	69.43
69.0-70.0	55.1	5.7	333.8	1.20	70.63
70.0-71.0	53.7	5.6	339.3	1.18	71.81
71.0-72.0	52.4	5.5	344.8	1.15	72.96

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	51.2	5.4	350.1	1.13	74.09
73.0-74.0	49.8	5.2	355.4	1.11	75.20
74.0-75.0	48.4	5.1	360.5	1.08	76.28
75.0-76.0	47.2	5.0	365.5	1.06	77.34
76.0-77.0	46.2	4.9	370.4	1.04	78.39
77.0-78.0	45.0	4.8	375.3	1.02	79.41
78.0-79.0	43.8	4.7	380.0	1.00	80.40
79.0-80.0	42.6	4.6	384.6	0.97	81.37
80.0-81.0	41.2	4.5	389.0	0.94	82.32
81.0-82.0	39.9	4.3	393.3	0.92	83.23
82.0-83.0	38.8	4.2	397.6	0.89	84.13
83.0-84.0	38.0	4.1	401.7	0.88	85.00
84.0-85.0	37.2	4.1	405.8	0.86	85.86
85.0-86.0	36.1	3.9	409.7	0.83	86.70
86.0-87.0	35.1	3.8	413.6	0.81	87.51
87.0-88.0	34.2	3.7	417.3	0.79	88.30
88.0-89.0	33.1	3.6	420.9	0.77	89.07
89.0-90.0	32.1	3.5	424.4	0.74	89.81
90.0-91.0	31.1	3.4	427.9	0.72	90.53
91.0-92.0	30.0	3.3	431.1	0.70	91.23
92.0-93.0	28.7	3.1	434.3	0.67	91.90
93.0-94.0	27.8	3.0	437.3	0.64	92.54
94.0-95.0	27.1	3.0	440.3	0.63	93.17
95.0-96.0	26.6	2.9	443.2	0.61	93.78
96.0-97.0	26.1	2.8	446.0	0.60	94.38
97.0-98.0	25.1	2.7	448.8	0.58	94.96
98.0-99.0	23.0	2.5	451.3	0.53	95.49
99.0-100.0	20.6	2.2	453.5	0.47	95.96
100.0-101.0	19.4	2.1	455.6	0.44	96.40
101.0-102.0	19.8	2.1	457.7	0.45	96.85
102.0-103.0	21.0	2.3	460.0	0.48	97.33
103.0-104.0	20.4	2.2	462.1	0.46	97.79
104.0-105.0	16.7	1.8	463.9	0.38	98.16
105.0-106.0	12.0	1.3	465.2	0.27	98.43
106.0-107.0	7.8	0.8	466.0	0.17	98.61
107.0-108.0	4.7	0.5	466.5	0.10	98.71

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	3.0	0.3	466.8	0.07	98.78
109.0-110.0	2.5	0.3	467.1	0.05	98.83
110.0-111.0	2.3	0.2	467.3	0.05	98.88
111.0-112.0	2.1	0.2	467.5	0.05	98.93
112.0-113.0	2.0	0.2	467.7	0.04	98.97
113.0-114.0	1.9	0.2	467.9	0.04	99.01
114.0-115.0	1.9	0.2	468.1	0.04	99.05
115.0-116.0	1.8	0.2	468.3	0.04	99.09
116.0-117.0	1.8	0.2	468.4	0.04	99.12
117.0-118.0	1.7	0.2	468.6	0.04	99.16
118.0-119.0	1.7	0.2	468.8	0.03	99.19
119.0-120.0	1.6	0.2	468.9	0.03	99.23
120.0-121.0	1.6	0.2	469.1	0.03	99.26
121.0-122.0	1.6	0.2	469.2	0.03	99.29
122.0-123.0	1.6	0.1	469.4	0.03	99.32
123.0-124.0	1.5	0.1	469.5	0.03	99.35
124.0-125.0	1.5	0.1	469.7	0.03	99.38
125.0-126.0	1.4	0.1	469.8	0.03	99.41
126.0-127.0	1.4	0.1	469.9	0.03	99.43
127.0-128.0	1.3	0.1	470.0	0.02	99.46
128.0-129.0	1.3	0.1	470.1	0.02	99.48
129.0-130.0	1.2	0.1	470.2	0.02	99.50
130.0-131.0	1.2	0.1	470.3	0.02	99.52
131.0-132.0	1.1	0.1	470.4	0.02	99.54
132.0-133.0	1.1	0.1	470.5	0.02	99.56
133.0-134.0	1.1	0.1	470.6	0.02	99.58
134.0-135.0	1.1	0.1	470.7	0.02	99.60
135.0-136.0	1.1	0.1	470.8	0.02	99.62
136.0-137.0	1.1	0.1	470.9	0.02	99.64
137.0-138.0	1.1	0.1	470.9	0.02	99.65
138.0-139.0	1.1	0.1	471.0	0.02	99.67
139.0-140.0	1.1	0.1	471.1	0.02	99.69
140.0-141.0	1.1	0.1	471.2	0.02	99.70
141.0-142.0	1.1	0.1	471.2	0.02	99.72
142.0-143.0	1.0	0.1	471.3	0.01	99.73
143.0-144.0	1.0	0.1	471.4	0.01	99.75

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	1.0	0.1	471.4	0.01	99.76
145.0-146.0	1.0	0.1	471.5	0.01	99.77
146.0-147.0	1.0	0.1	471.6	0.01	99.79
147.0-148.0	1.0	0.1	471.6	0.01	99.80
148.0-149.0	1.0	0.1	471.7	0.01	99.81
149.0-150.0	1.0	0.1	471.8	0.01	99.82
150.0-151.0	1.0	0.1	471.8	0.01	99.84
151.0-152.0	1.0	0.1	471.9	0.01	99.85
152.0-153.0	1.0	0.1	471.9	0.01	99.86
153.0-154.0	1.0	0.0	472.0	0.01	99.87
154.0-155.0	1.0	0.0	472.0	0.01	99.88
155.0-156.0	1.0	0.0	472.1	0.01	99.89
156.0-157.0	1.0	0.0	472.1	0.01	99.90
157.0-158.0	1.0	0.0	472.1	0.01	99.91
158.0-159.0	1.0	0.0	472.2	0.01	99.91
159.0-160.0	1.0	0.0	472.2	0.01	99.92
160.0-161.0	1.0	0.0	472.3	0.01	99.93
161.0-162.0	1.0	0.0	472.3	0.01	99.94
162.0-163.0	1.0	0.0	472.3	0.01	99.94
163.0-164.0	1.0	0.0	472.4	0.01	99.95
164.0-165.0	1.0	0.0	472.4	0.01	99.96
165.0-166.0	1.0	0.0	472.4	0.01	99.96
166.0-167.0	1.0	0.0	472.4	0.01	99.97
167.0-168.0	0.9	0.0	472.5	0.00	99.97
168.0-169.0	0.9	0.0	472.5	0.00	99.98
169.0-170.0	1.0	0.0	472.5	0.00	99.98
170.0-171.0	1.0	0.0	472.5	0.00	99.98
171.0-172.0	1.0	0.0	472.5	0.00	99.99
172.0-173.0	1.0	0.0	472.5	0.00	99.99
173.0-174.0	1.0	0.0	472.6	0.00	99.99
174.0-175.0	1.0	0.0	472.6	0.00	99.99
175.0-176.0	1.0	0.0	472.6	0.00	100.00
176.0-177.0	1.0	0.0	472.6	0.00	100.00
177.0-178.0	1.0	0.0	472.6	0.00	100.00
178.0-179.0	1.0	0.0	472.6	0.00	100.00
179.0-180.0	1.0	0.0	472.6	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: