

Report No.: 01

Test Time: 2017/2/5 15:43

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RBMT243.035PH

Luminous Length (mm): 500mm

Luminous Height (mm): 1mm

Current: 0.203 A

Power Factor: 1.000

Luminaire Description: RBMT243.035PH

Luminous Width (mm): 12mm

Voltage: 24.0 V

Power: 4.87 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 425.1 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H115.2

Vertical Diffuse Angle(50%): V115.8

Luminaire Efficacy Rating (LER): 87

Max. Intensity: 142.64 cd

Total Rated Lamp Lumens: 425.1 lm

Efficiency: 100%

Upward Ratio: 1%

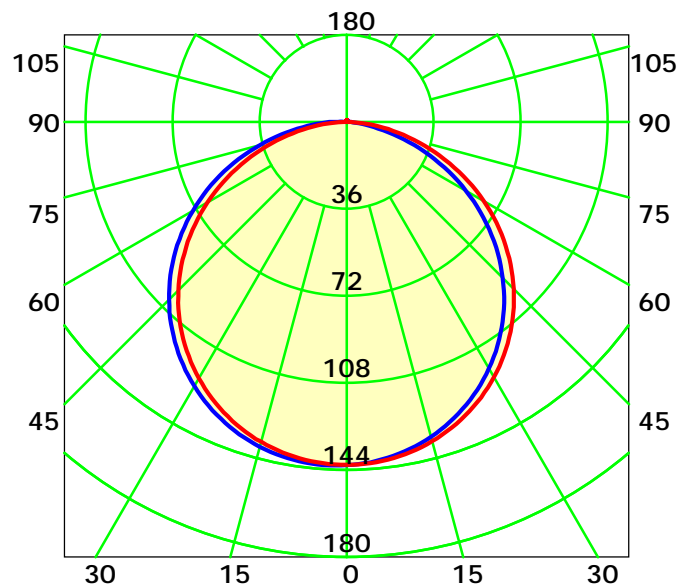
Central Intensity: 142.35 cd

Pos of Max. Intensity: H180 V3

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 115.5° Unit: cd

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 30.0

Test Lab: acolyteled

Test Type: TYPE C

Temperature: 25°C

Operator: roy

Gamma Plane (°):0.0-180.0: 1.0

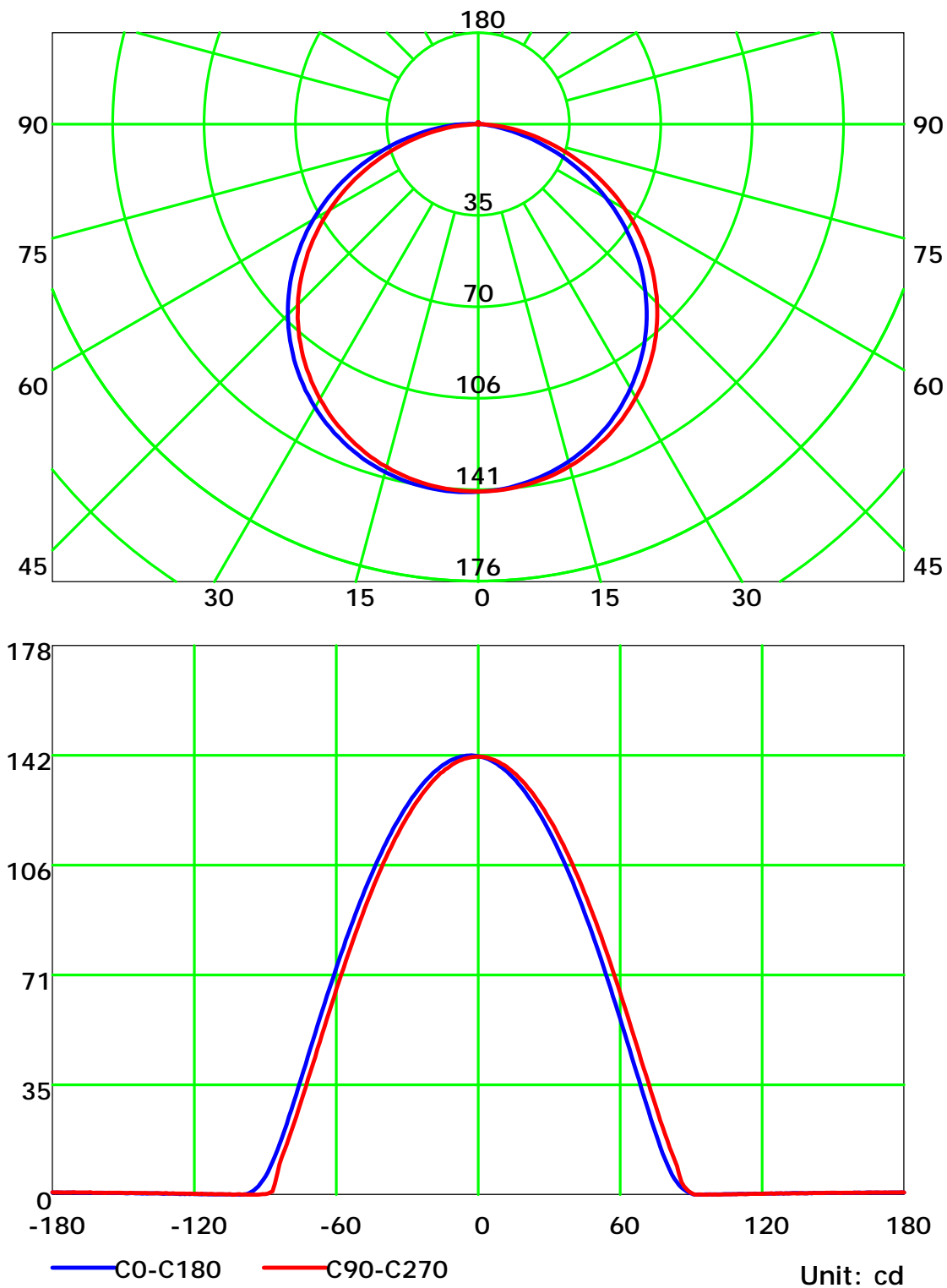
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

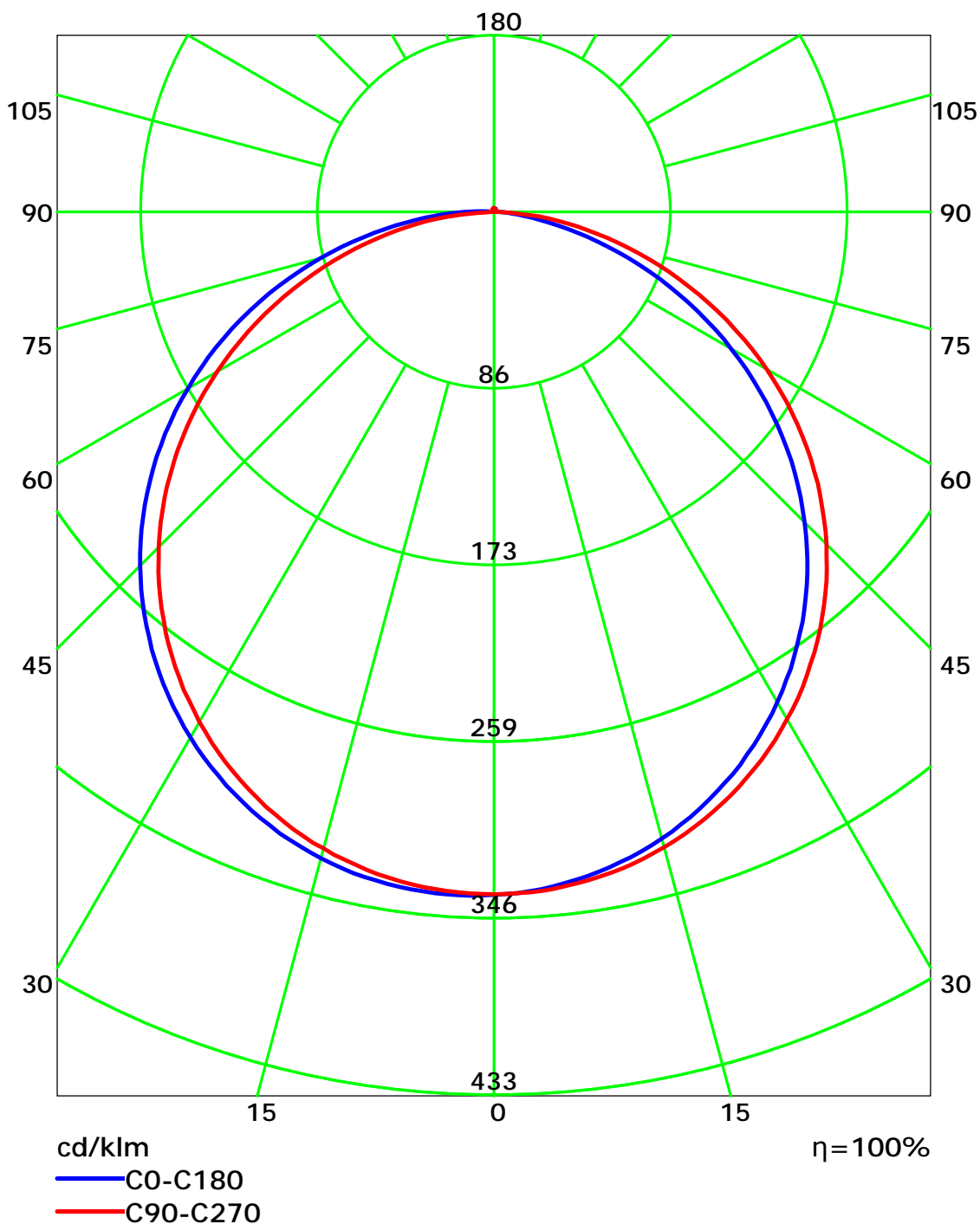
## Luminous Intensity Distribution Curve



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

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: acolyteled  
Test Type: TYPE C  
Temperature: 25°C  
Operator: roy

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

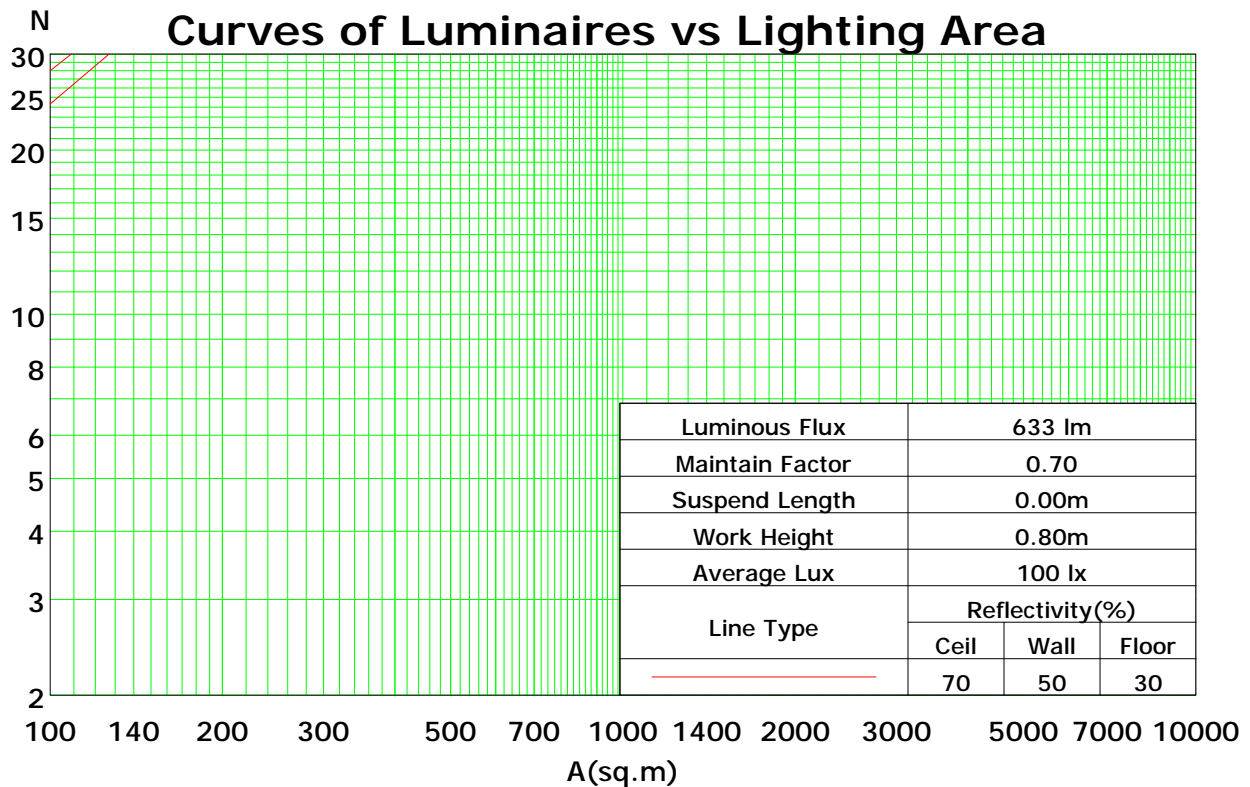
## Coefficients Of Utilization - Zonal Cavity Method

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	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	82
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	79	70	64	87	77	69	63	74	67	62	71	65	61	68	64	60	57
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	49	43	39	37
7	64	51	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	35	29	25	23

Spacing Criteria (0-180): 1.28

Spacing Criteria (90-270): 1.28

Spacing Criteria (Diagonal): 1.40



C Plane (°):0.0-360.0: 30.0

Test Lab: acolyteled

Test Type: TYPE C

Temperature: 25°C

Operator: roy

Gamma Plane (°):0.0-180.0:1.0

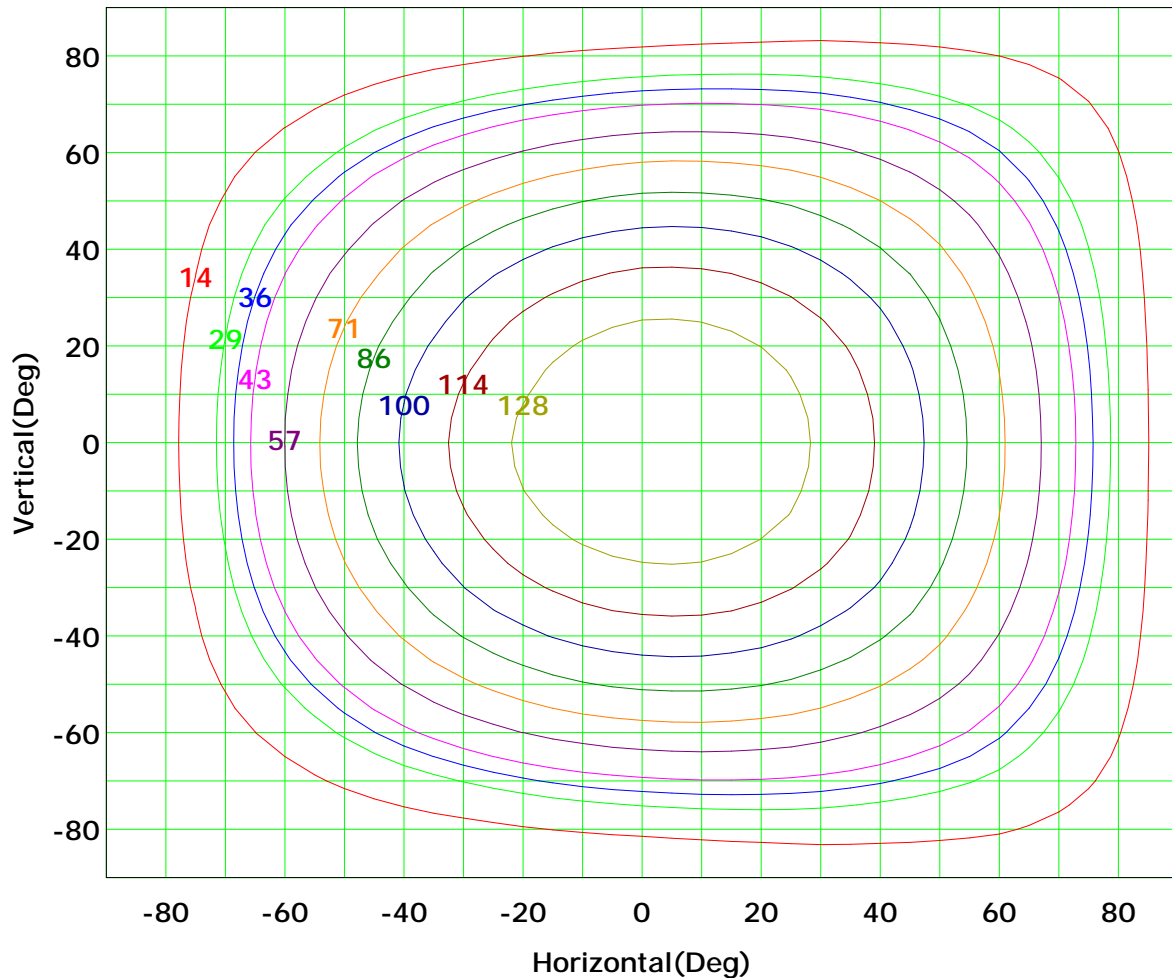
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Isocandela (rectangle)



I<sub>max</sub> (100%): 143 cd

( 10%):	14 cd	( 20%):	29 cd
( 25%):	36 cd	( 30%):	43 cd
( 40%):	57 cd	( 50%):	71 cd
( 60%):	86 cd	( 70%):	100 cd
( 80%):	114 cd	( 90%):	128 cd

C Plane (°):0.0-360.0: 30.0

Test Lab: acolyteled

Test Type: TYPE C

Temperature: 25°C

Operator: roy

Gamma Plane (°):0.0-180.0:1.0

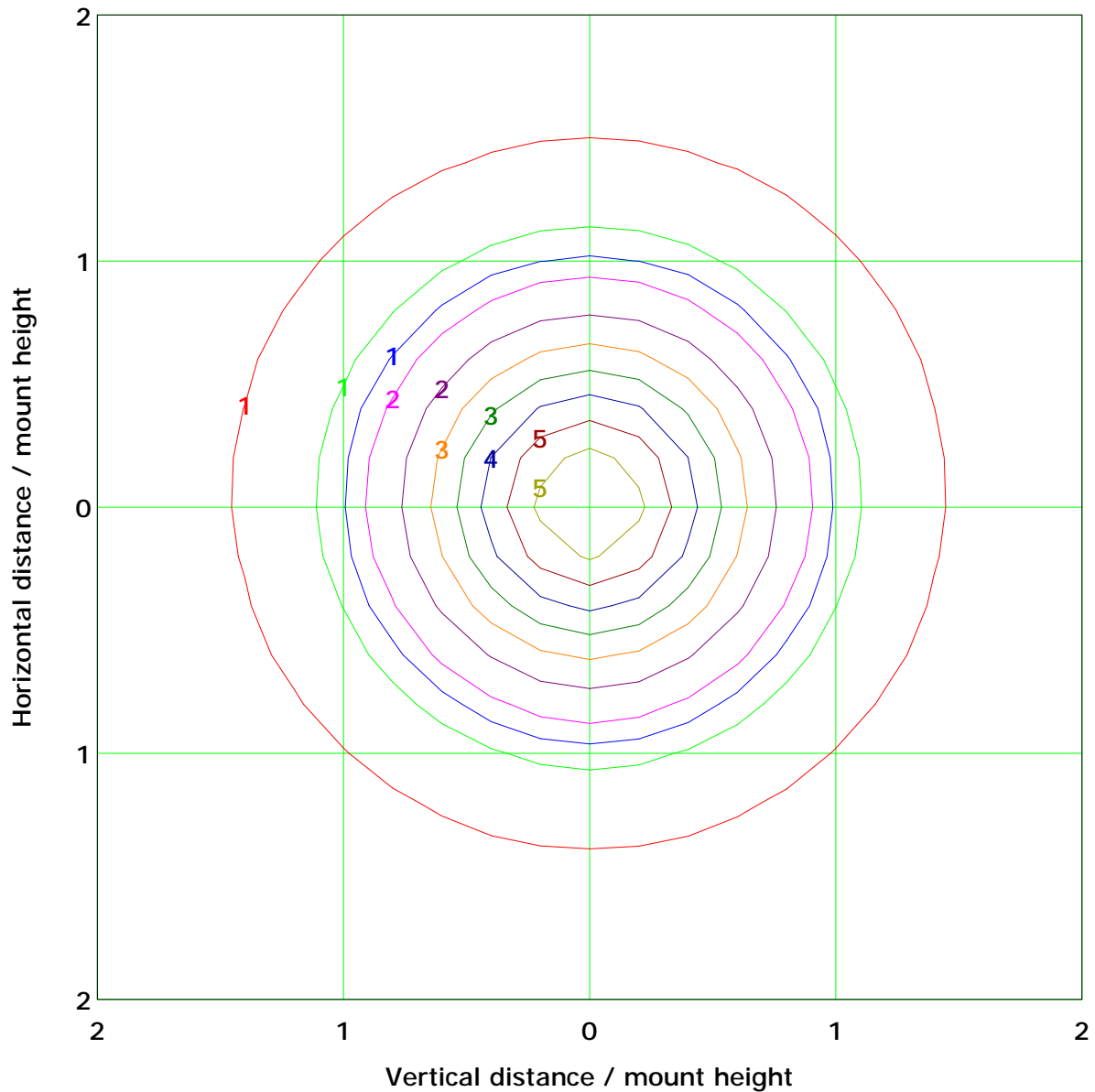
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 5.7 lx

( 10%): 0.6 lx	( 20%): 1.1 lx
( 25%): 1.4 lx	( 30%): 1.7 lx
( 40%): 2.3 lx	( 50%): 2.8 lx
( 60%): 3.4 lx	( 70%): 4.0 lx
( 80%): 4.6 lx	( 90%): 5.1 lx

C Plane (°):0.0-360.0: 30.0

Test Lab: acolyteled

Test Type: TYPE C

Temperature: 25°C

Operator: roy

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1800B

Distance: 9.028 m

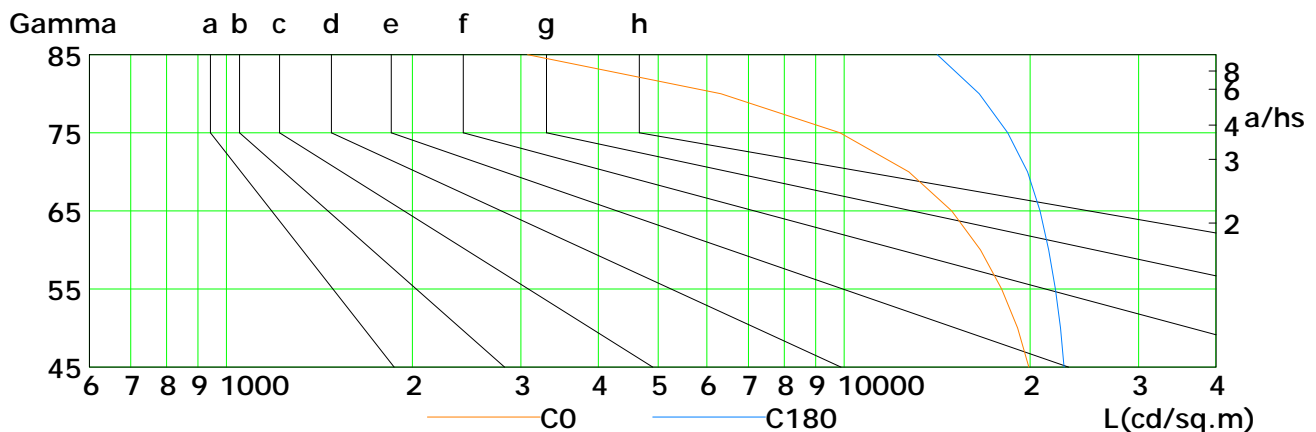
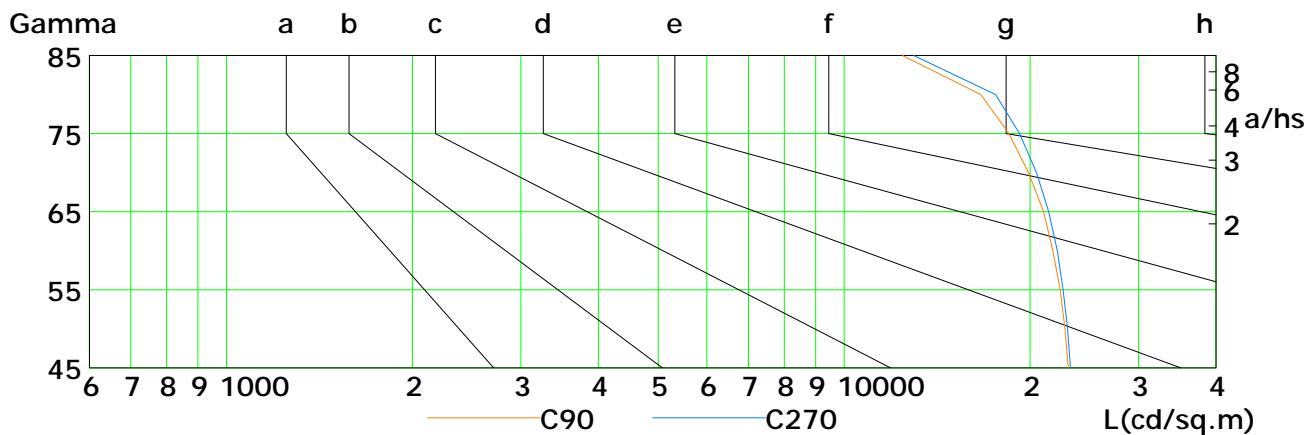
Humidity: 60%

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	19916	19093	17993	16633	14942	12728	9853	6322	3075
C90	23053	22791	22377	21791	21036	19894	18498	16655	12432
C180	22697	22414	21999	21456	20777	19810	18415	16561	14152
C270	23246	23009	22632	22153	21456	20486	19246	17586	12956

C Plane (°):0.0-360.0: 30.0

Test Lab: acolyteled

Test Type: TYPE C

Temperature: 25°C

Operator: roy

Gamma Plane (°):0.0-180.0:1.0

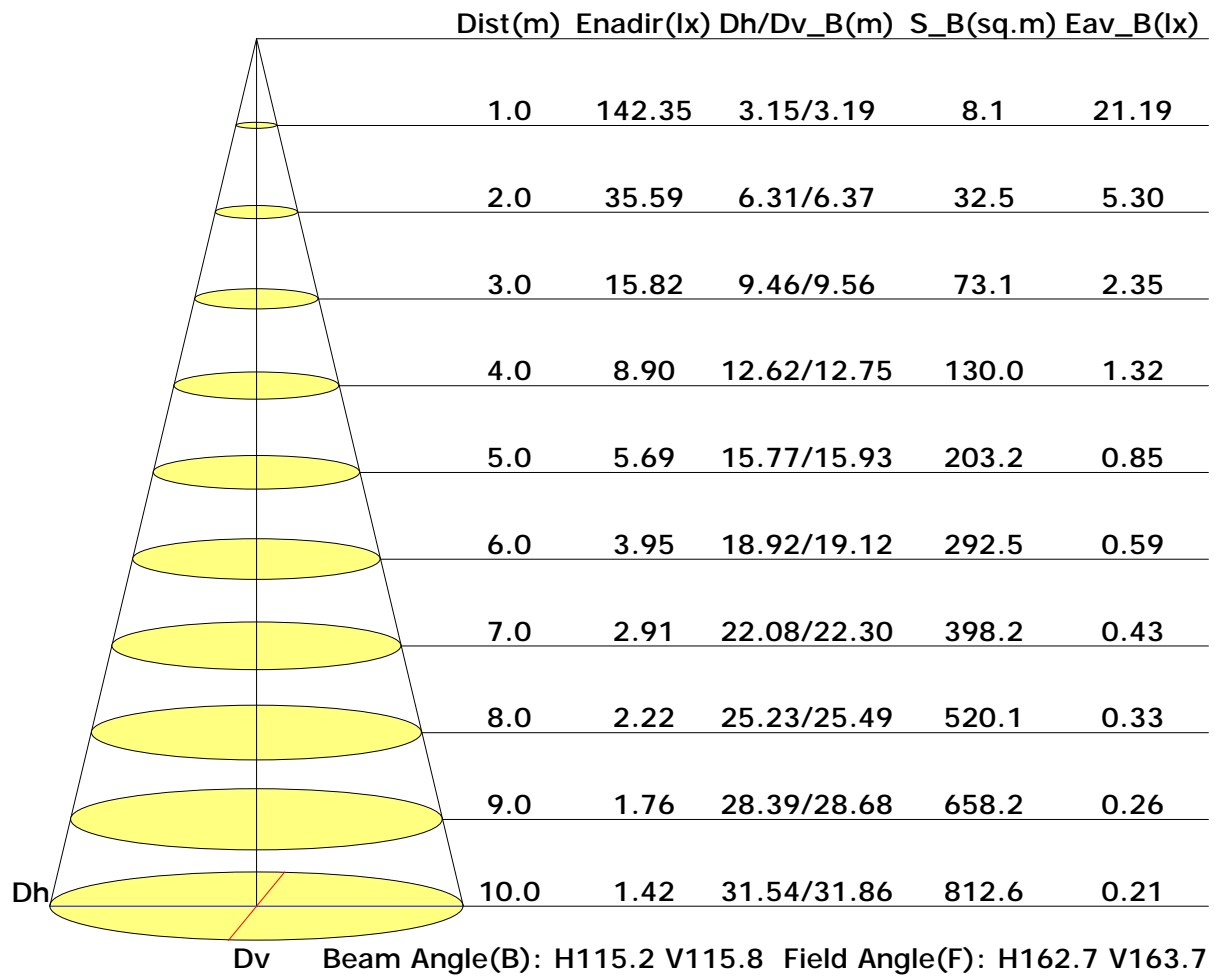
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Illuminance at a Distance

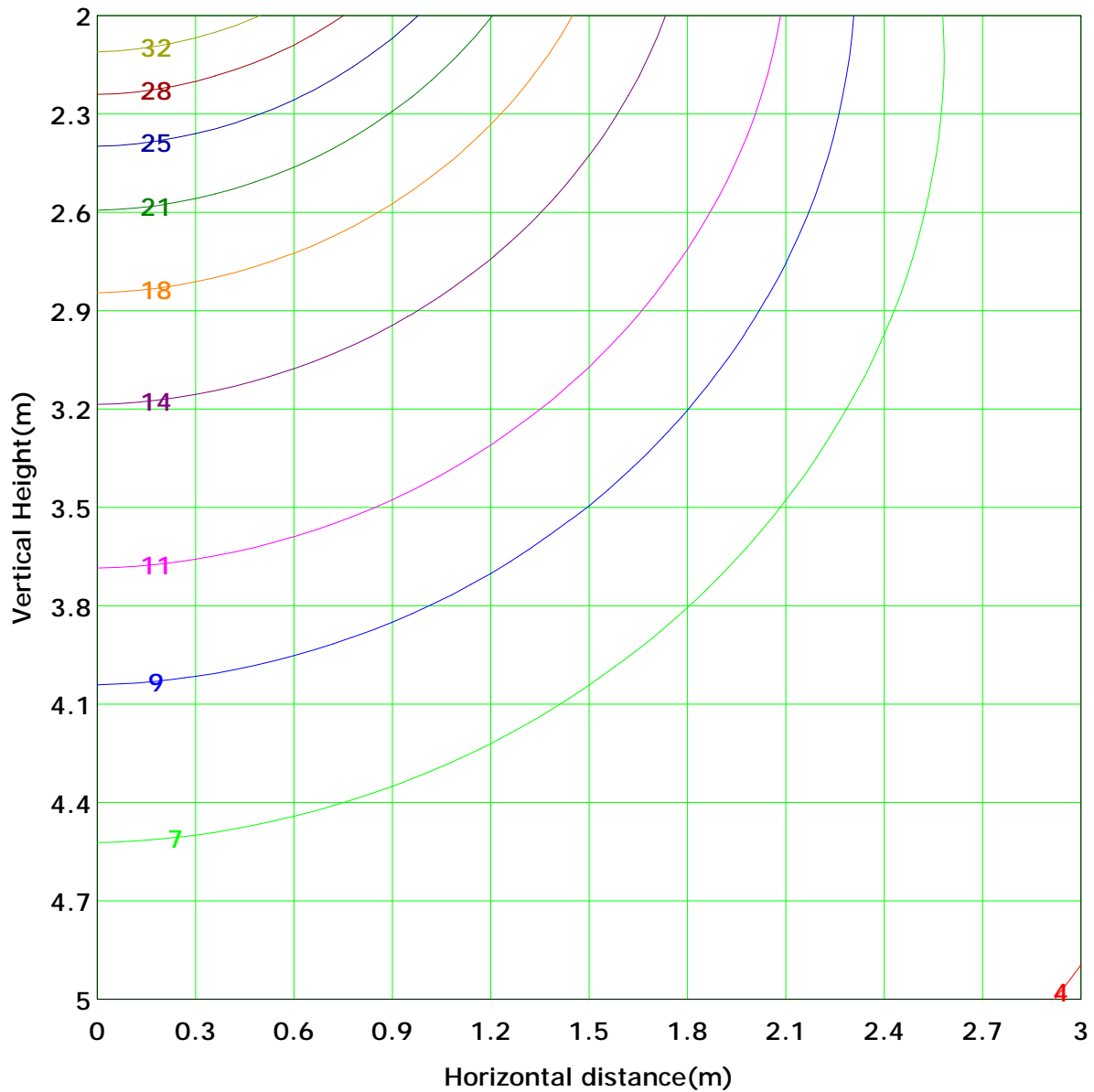


C Plane (°):0.0-360.0: 30.0  
 Test Lab: acolyteled  
 Test Type: TYPE C  
 Temperature: 25°C  
 Operator: roy

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: 35.6 lx
( 10%): 3.6 lx	( 20%): 7.1 lx	
( 25%): 8.9 lx	( 30%): 10.7 lx	
( 40%): 14.2 lx	( 50%): 17.8 lx	
( 60%): 21.4 lx	( 70%): 24.9 lx	
( 80%): 28.5 lx	( 90%): 32.0 lx	

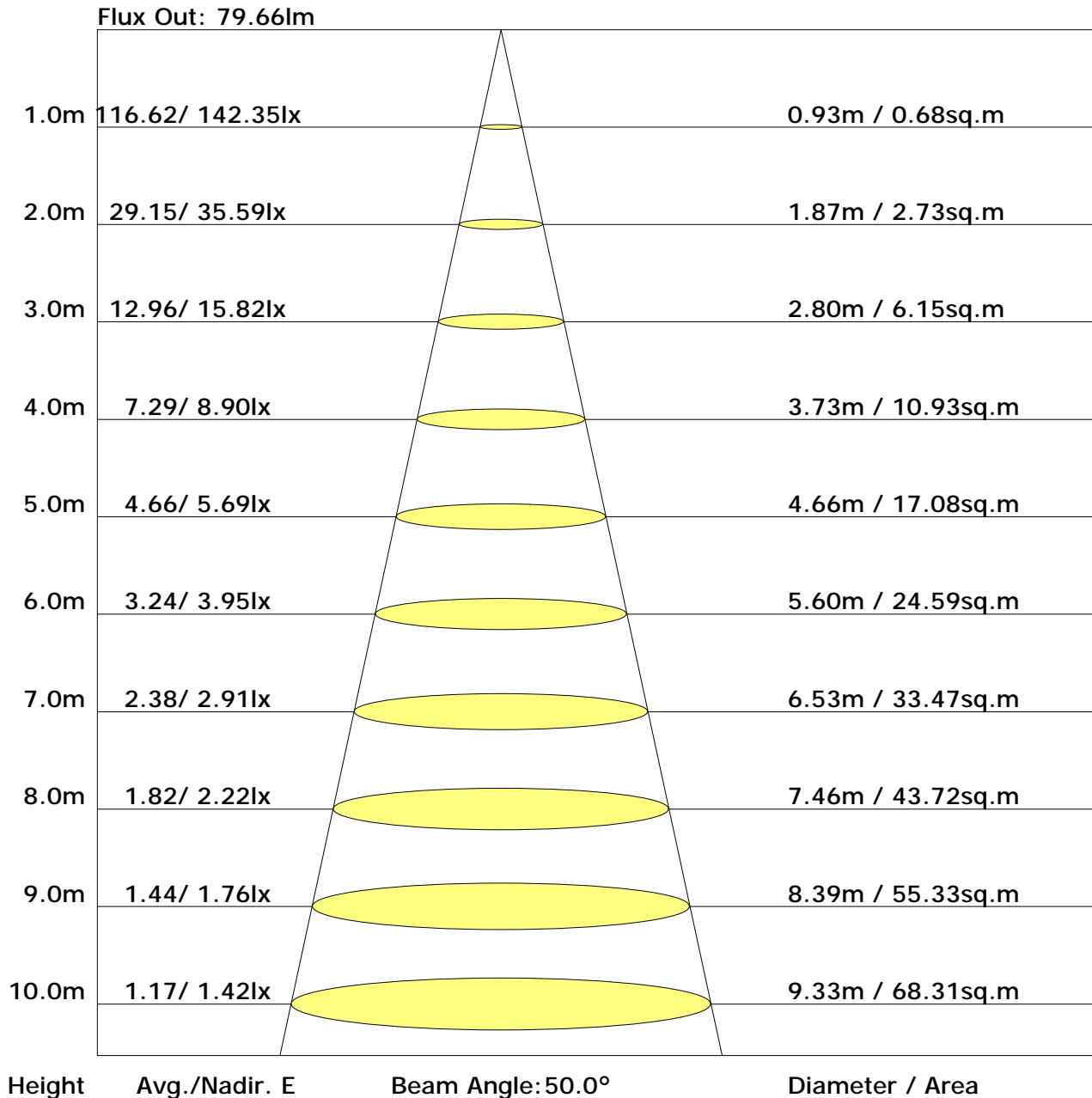
C Plane (°):0.0-360.0: 30.0  
Test Lab: acolyteled  
Test Type: TYPE C  
Temperature: 25°C  
Operator: roy

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

## Unit: 1m

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: acolyteled  
 Test Type: TYPE C  
 Temperature: 25°C  
 Operator: roy

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	24.9	26.6	25.3	26.9	27.2	25.5	27.2	25.9	27.5	27.8
3H	26.5	28.0	26.9	28.3	28.7	27.3	28.7	27.6	29.1	29.5
4H	26.9	28.4	27.4	28.7	29.1	27.9	29.3	28.3	29.6	30.0
6H	27.2	28.5	27.6	28.9	29.3	28.3	29.6	28.7	30.0	30.4
8H	27.3	28.5	27.7	28.9	29.3	28.4	29.7	28.9	30.1	30.5
12H	27.3	28.5	27.7	28.9	29.3	28.5	29.7	28.9	30.1	30.5
X=4H Y=2H	25.5	26.9	25.9	27.3	27.6	26.2	27.6	26.6	28.0	28.3
3H	27.2	28.4	27.6	28.8	29.2	28.1	29.3	28.6	29.7	30.1
4H	27.8	28.8	28.2	29.3	29.7	28.9	30.0	29.3	30.4	30.8
6H	28.1	29.1	28.6	29.5	30.0	29.4	30.4	29.9	30.8	31.3
8H	28.2	29.1	28.7	29.5	30.0	29.6	30.5	30.1	30.9	31.4
12H	28.2	29.0	28.7	29.5	30.0	29.7	30.5	30.2	31.0	31.4
X=8H Y=4H	28.0	28.9	28.5	29.3	29.8	29.2	30.1	29.7	30.6	31.0
6H	28.4	29.1	28.9	29.6	30.1	29.9	30.6	30.4	31.1	31.6
8H	28.5	29.2	29.0	29.7	30.2	30.1	30.8	30.6	31.3	31.8
12H	28.6	29.1	29.1	29.6	30.2	30.3	30.9	30.8	31.4	31.9
X=12H Y=4H	28.0	28.8	28.5	29.3	29.8	29.3	30.1	29.8	30.5	31.0
6H	28.4	29.1	29.0	29.6	30.1	30.0	30.6	30.5	31.1	31.7
8H	28.6	29.1	29.1	29.6	30.2	30.3	30.8	30.8	31.3	31.9

Calculate in accordance with CIE 190:2010

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

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	0.55	0.66	0.73	0.79	0.86	0.91	0.95	1.00	1.03
	0.30		0.47	0.58	0.66	0.71	0.80	0.85	0.90	0.95	0.99
	0.20		0.42	0.52	0.60	0.66	0.74	0.81	0.85	0.91	0.96
0.50	0.50	0.20	0.54	0.64	0.71	0.76	0.83	0.88	0.91	0.95	0.98
	0.30		0.47	0.57	0.64	0.70	0.77	0.83	0.87	0.92	0.95
	0.20		0.41	0.51	0.59	0.65	0.73	0.79	0.83	0.89	0.92
0.30	0.50	0.20	0.52	0.62	0.68	0.73	0.80	0.84	0.87	0.92	0.94
	0.30		0.46	0.56	0.63	0.68	0.75	0.80	0.84	0.89	0.92
	0.20		0.41	0.51	0.58	0.64	0.71	0.77	0.81	0.86	0.89
0.00	0.00	0.00	0.39	0.48	0.55	0.60	0.68	0.73	0.77	0.82	0.85
Rating:5W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											

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

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

## 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	1.01	0.84	0.72	0.62	0.50	0.42	0.36	0.28	0.23	
	0.30		0.85	0.72	0.62	0.55	0.45	0.38	0.33	0.26	0.22	
	0.20		0.73	0.63	0.55	0.50	0.41	0.35	0.31	0.25	0.21	
0.50	0.50	0.20	0.98	0.81	0.69	0.60	0.48	0.43	0.34	0.26	0.22	
	0.30		0.83	0.70	0.61	0.54	0.44	0.37	0.32	0.25	0.21	
	0.20		0.72	0.62	0.54	0.49	0.40	0.34	0.30	0.24	0.20	
0.30	0.50	0.20	0.95	0.78	0.66	0.57	0.46	0.38	0.32	0.25	0.21	
	0.30		0.81	0.68	0.59	0.52	0.42	0.35	0.31	0.24	0.20	
	0.20		0.71	0.61	0.53	0.48	0.39	0.33	0.29	0.23	0.19	
0.00	0.00	0.00	0.61	0.51	0.44	0.39	0.32	0.27	0.23	0.18	0.15	
Rating:5W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

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

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

## 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	0.22
	0.30		0.10	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20
	0.20		0.05	0.07	0.08	0.09	0.12	0.13	0.14	0.16	0.17
0.50	0.50	0.20	0.16	0.18	0.18	0.19	0.20	0.20	0.21	0.21	0.21
	0.30		0.10	0.11	0.13	0.14	0.15	0.16	0.17	0.18	0.19
	0.20		0.05	0.07	0.08	0.09	0.11	0.13	0.14	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	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.18
	0.20		0.05	0.07	0.08	0.09	0.11	0.13	0.14	0.15	0.16
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:5W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											

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

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