

Report No.: 01

Test Time: 2017/2/5 15:15

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RBMT243.030PH

Luminous Length (mm): 500mm

Luminous Height (mm): 1mm

Current: 0.206 A

Power Factor: 1.000

Luminaire Description: RBMT243.030PH

Luminous Width (mm): 12mm

Voltage: 24.0 V

Power: 4.94 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 430.1 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H116

Vertical Diffuse Angle(50%): V116

Luminaire Efficacy Rating (LER): 87

Max. Intensity: 143.81 cd

Total Rated Lamp Lumens: 430.1 lm

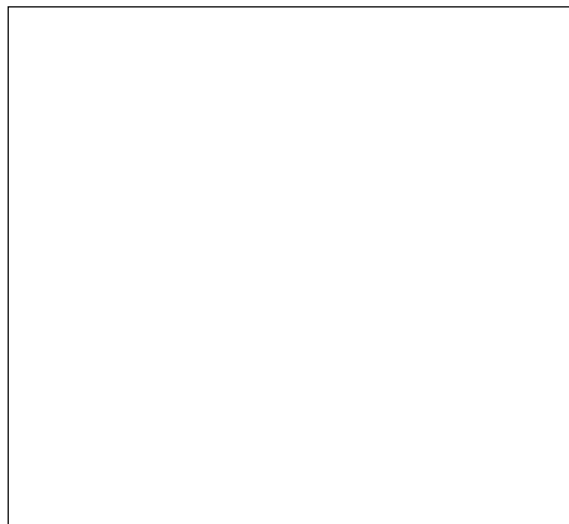
Efficiency: 100%

Upward Ratio: 1%

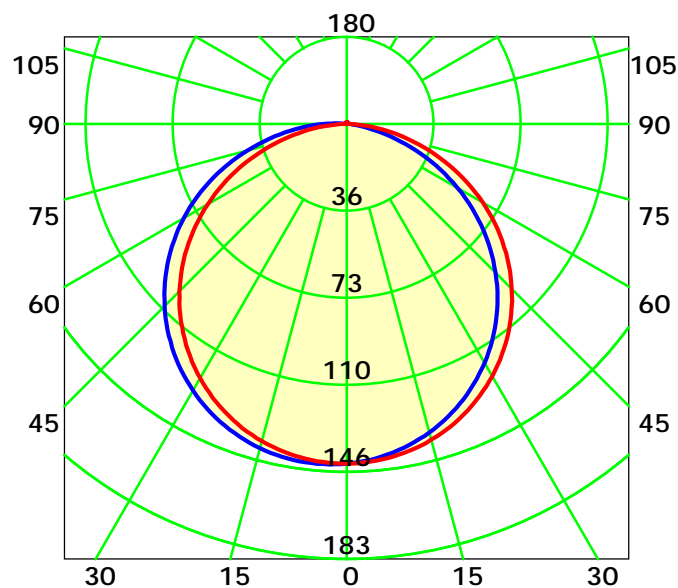
Central Intensity: 143.12 cd

Pos of Max. Intensity: H180 V5

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 116.0° 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

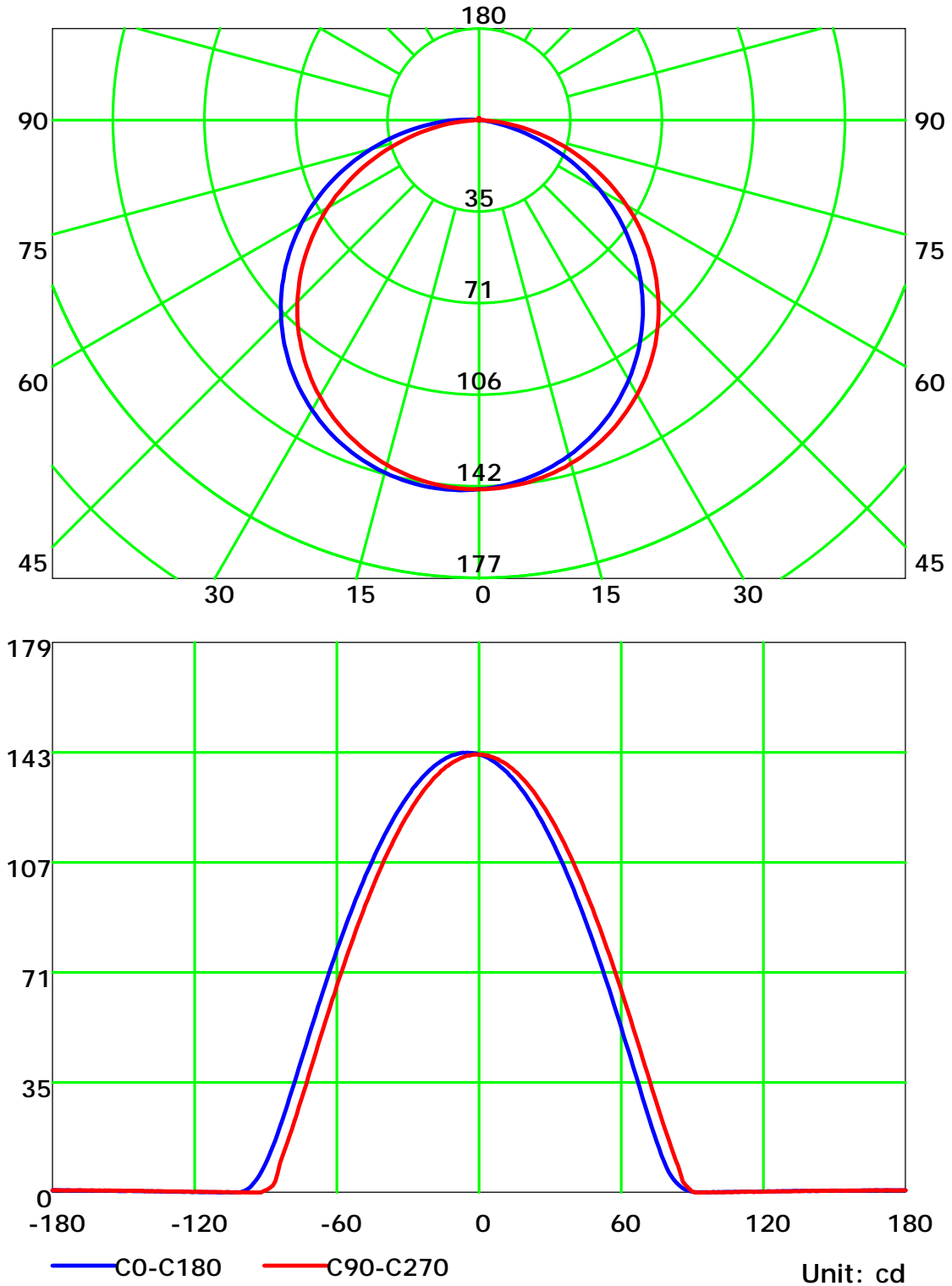
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

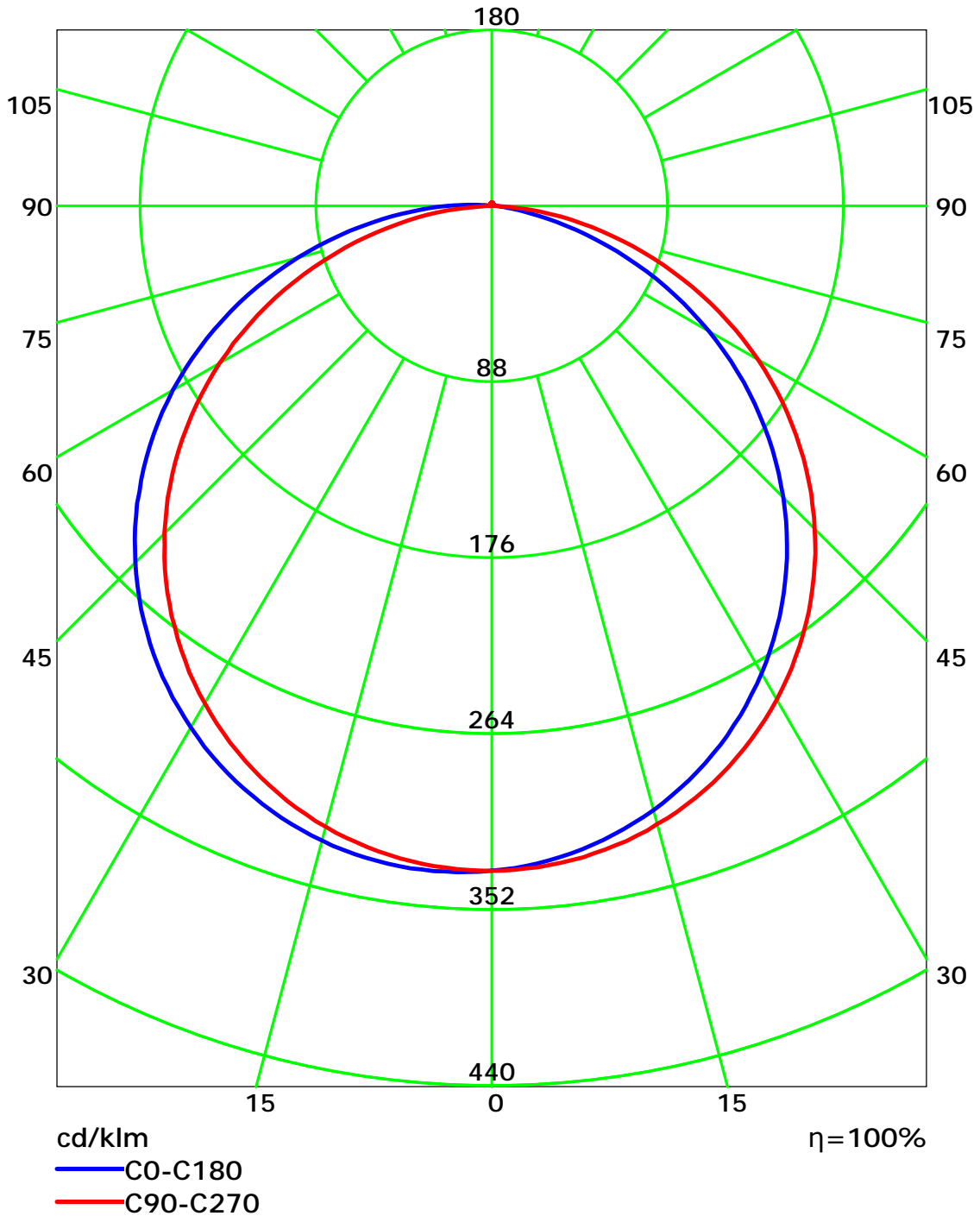
## Luminous Intensity Distribution Curve



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:

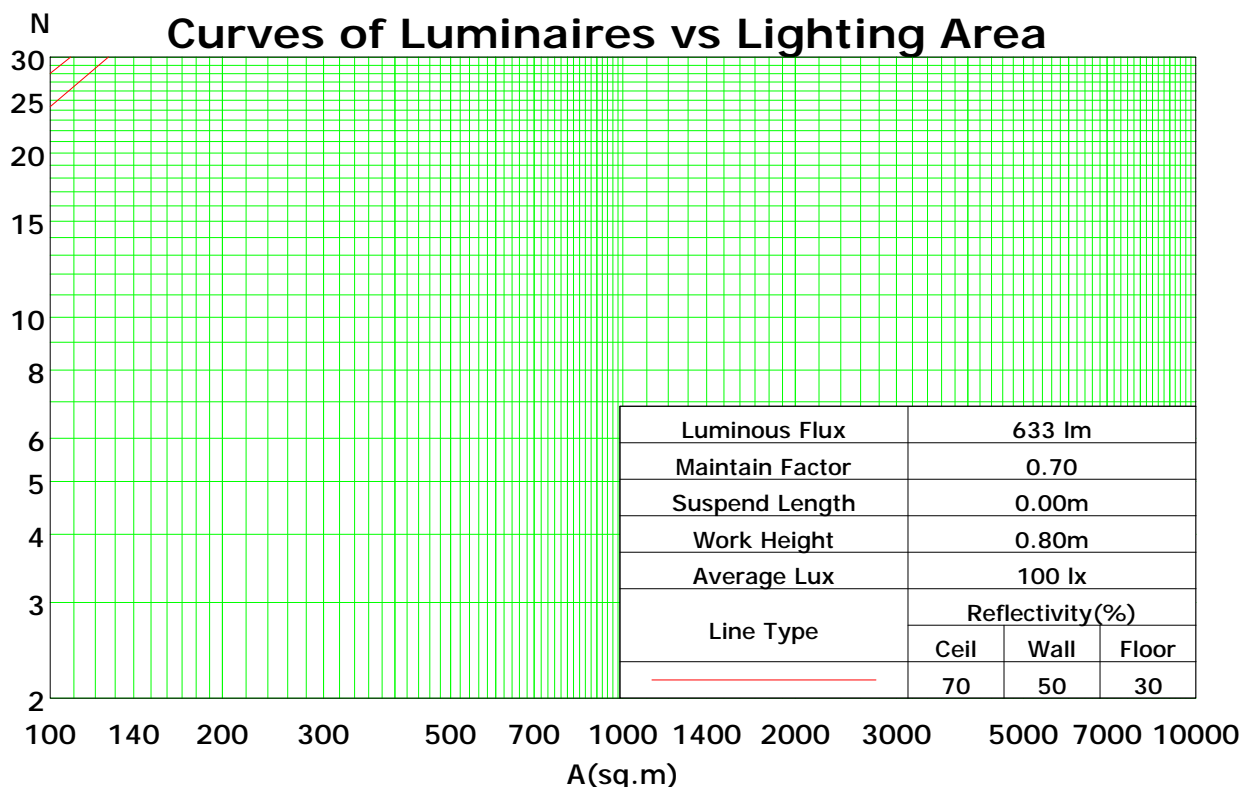
## Coefficients Of Utilization - Zonal Cavity Method

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	96	93	90	92	90	87	89	86	84	82
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	77	74	70	68
3	89	78	70	64	87	77	69	63	74	67	62	71	65	60	68	63	59	57
4	82	69	60	54	79	68	60	53	65	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	58	51	45	56	50	45	54	49	44	42
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	49	43	39	36
7	64	50	41	35	62	50	41	35	48	40	35	46	40	34	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	42	36	31	41	35	31	29
9	56	42	34	28	54	41	34	28	40	33	28	39	32	28	38	32	28	26
10	52	39	31	26	51	38	31	25	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

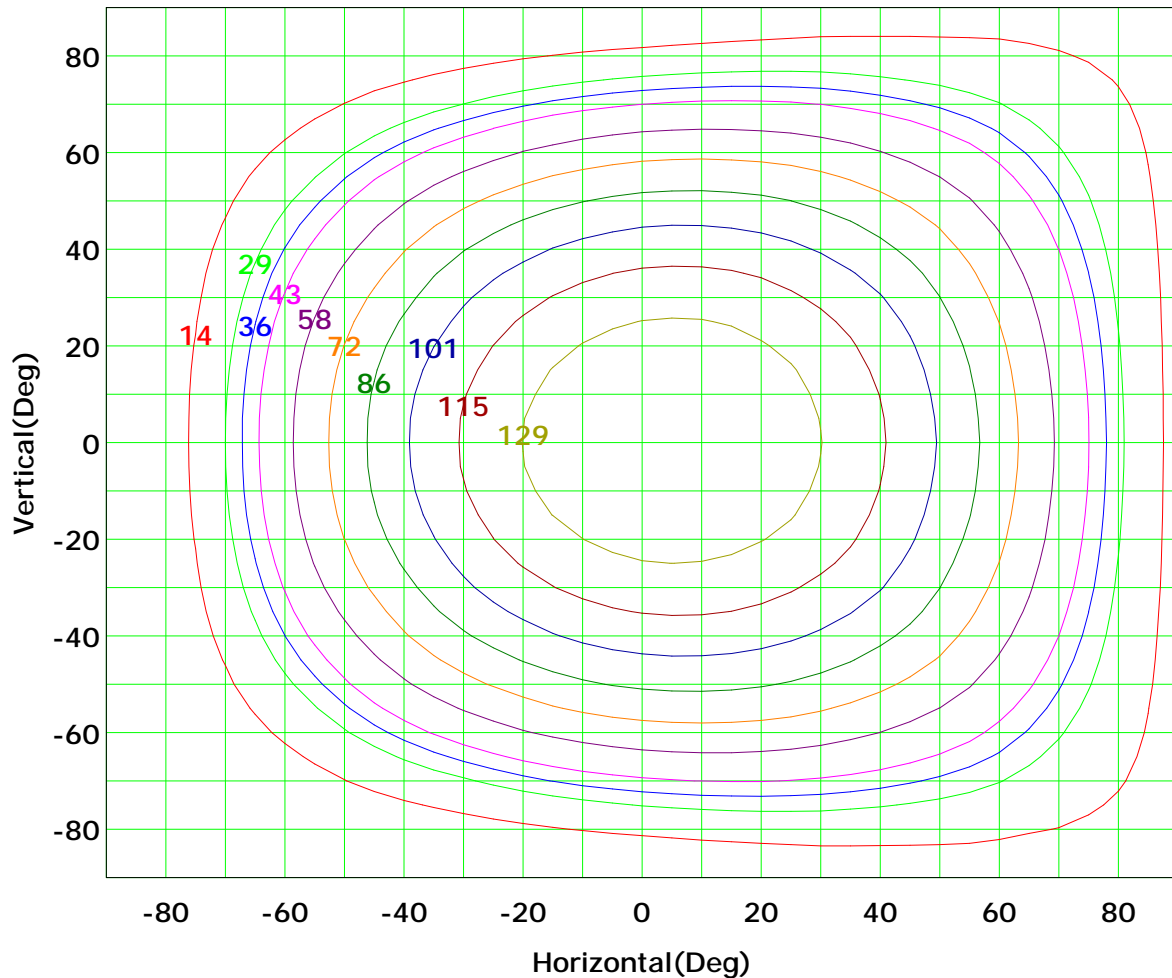
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Isocandela (rectangle)



I<sub>max</sub> (100%): 144 cd

( 10%):	14 cd	( 20%):	29 cd
( 25%):	36 cd	( 30%):	43 cd
( 40%):	58 cd	( 50%):	72 cd
( 60%):	86 cd	( 70%):	101 cd
( 80%):	115 cd	( 90%):	129 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

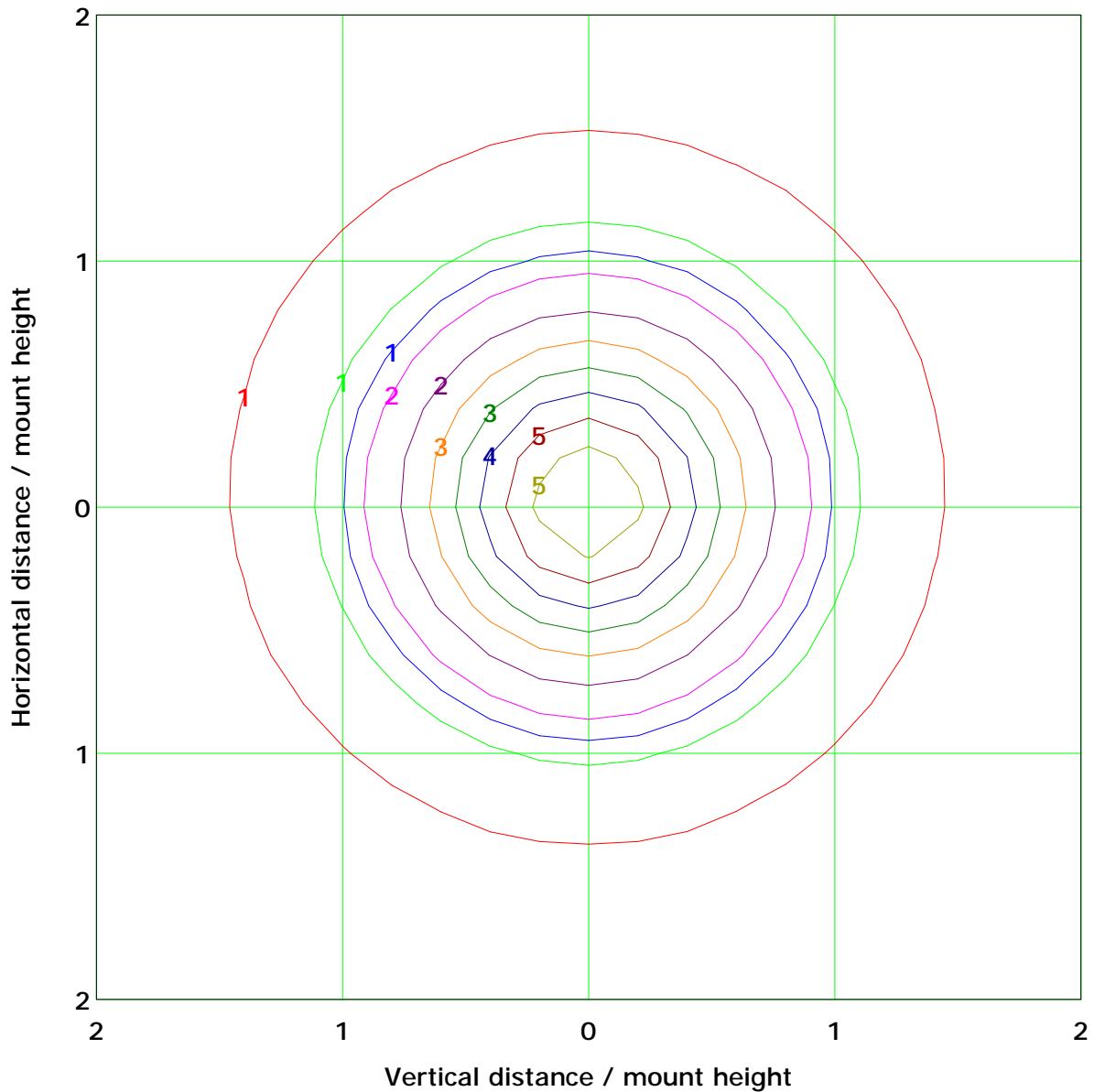
Test Device: GPM-1800B

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%): 2.9 lx
( 60%): 3.4 lx	( 70%): 4.0 lx
( 80%): 4.6 lx	( 90%): 5.2 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

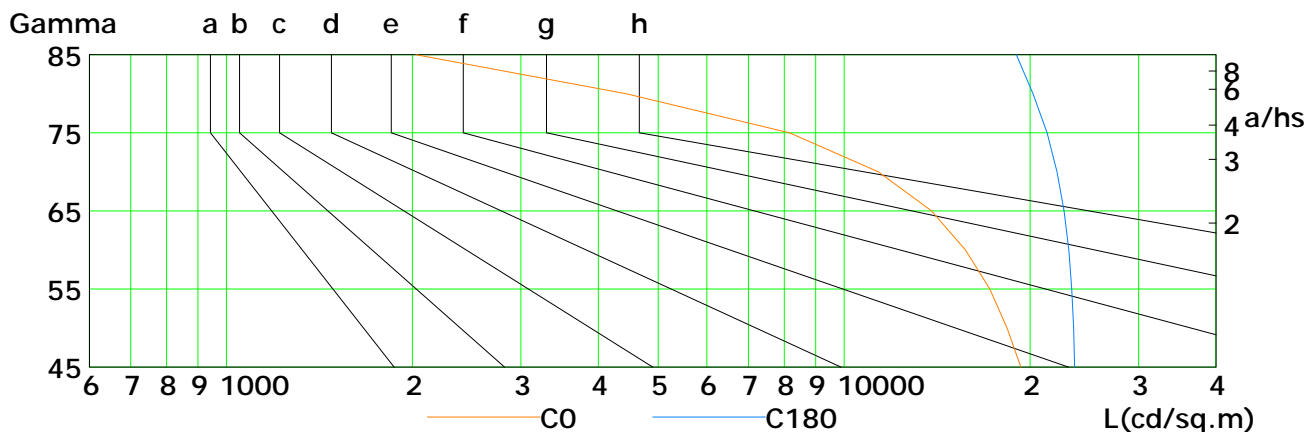
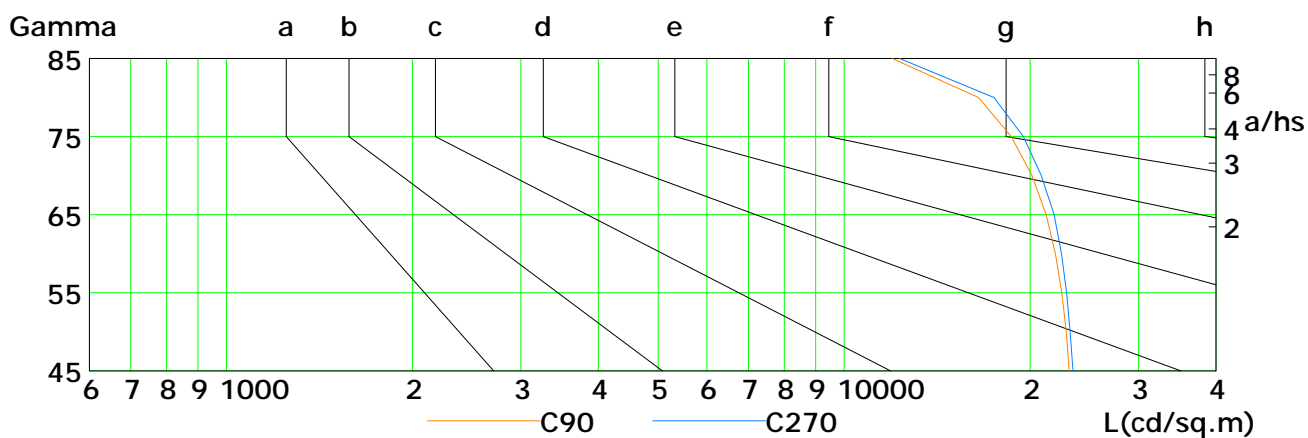
Humidity: 60%

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	19338	18371	17227	15727	13858	11372	8159	4439	2027
C90	23140	22887	22531	21997	21244	20151	18658	16523	11965
C180	23630	23537	23355	23111	22708	22118	21308	20237	19000
C270	23471	23239	22925	22499	21876	20873	19527	17491	12302

C Plane (°):0.0-360.0: 30.0

Test Lab: acolyteled

Test Type: TYPE C

Temperature: 25℃

Operator: roy

Gamma Plane (°):0.0-180.0: 1.0

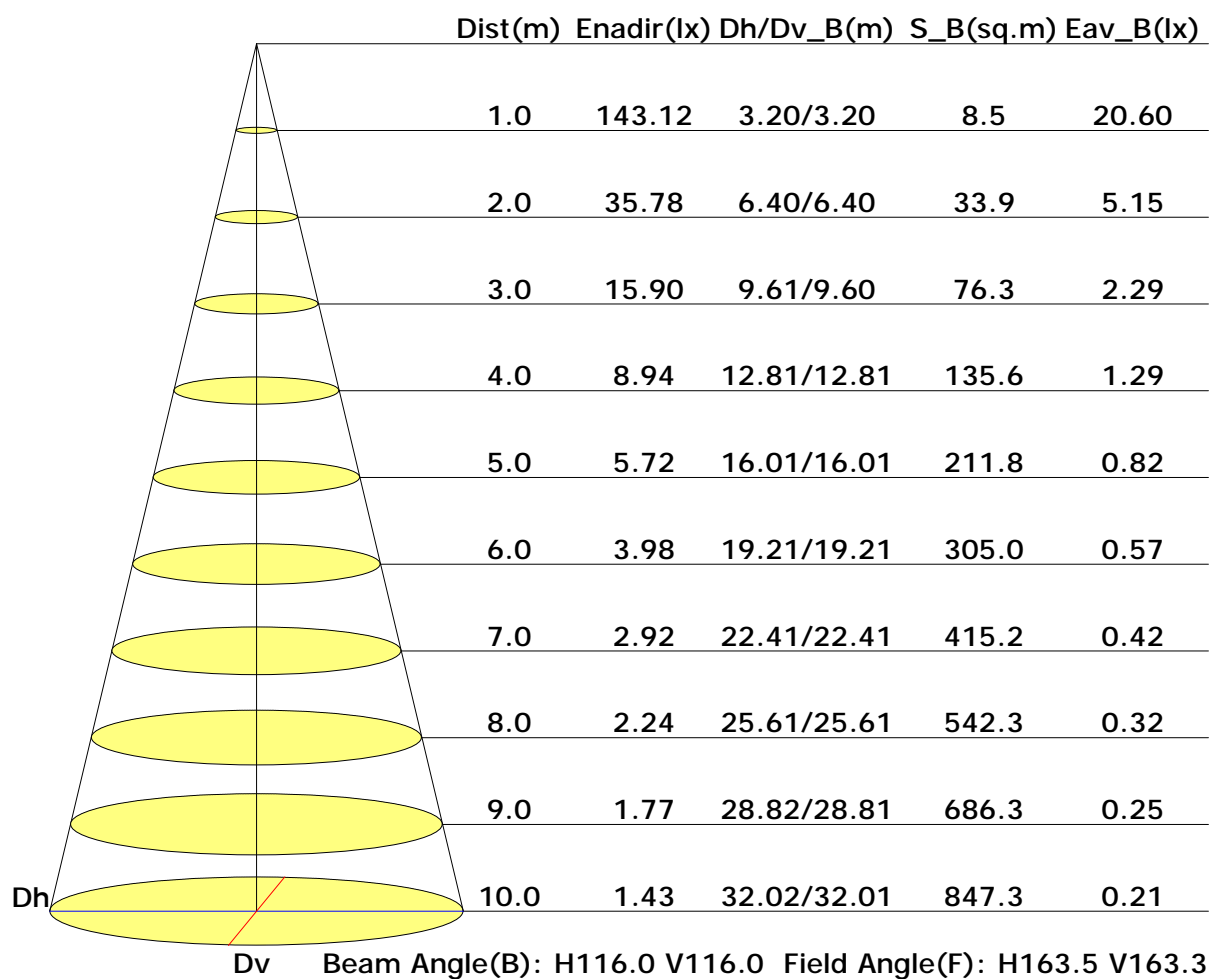
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

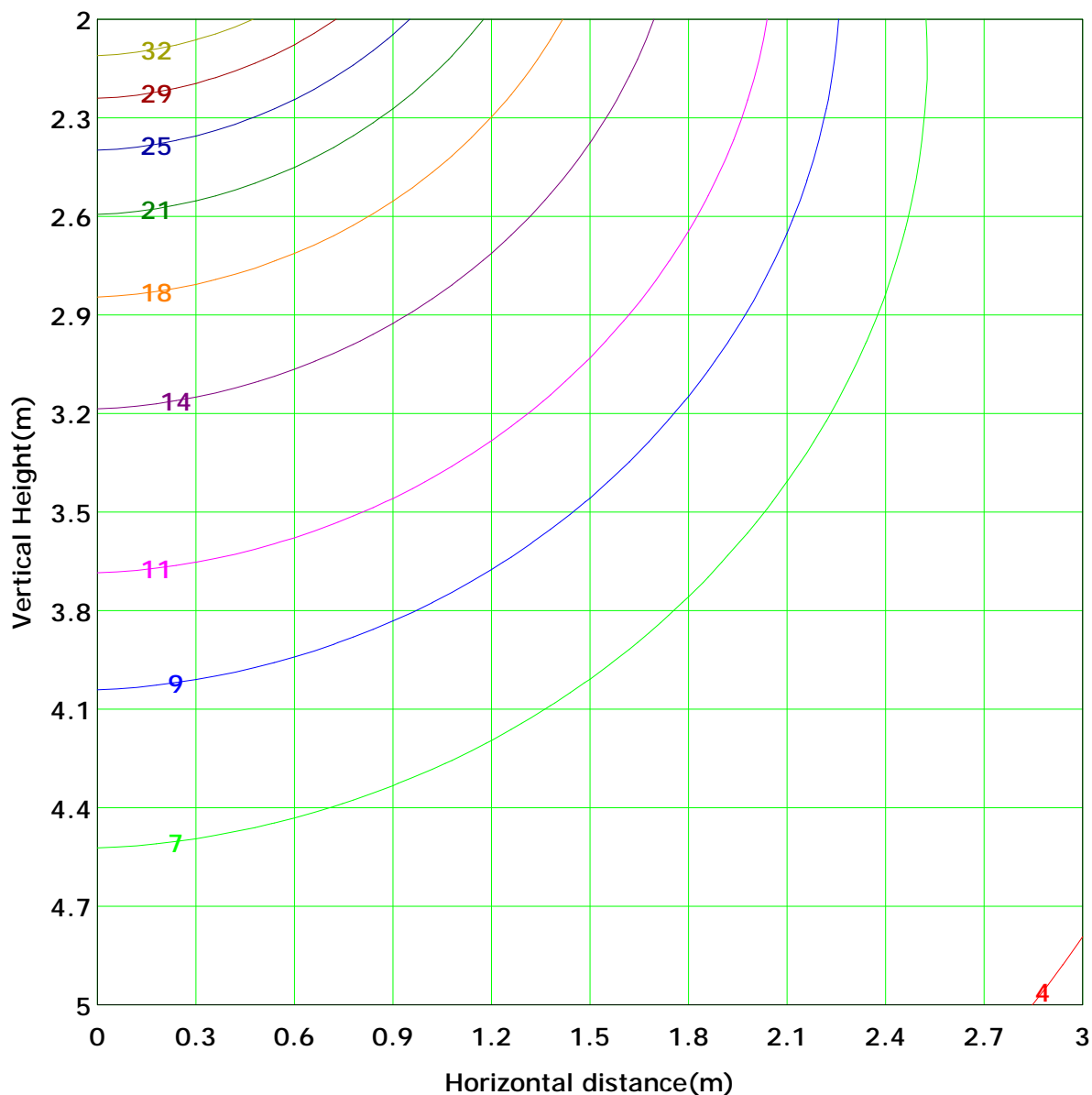
Inspector:

## Illuminance at a Distance





## Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 35.8 lx
( 10%): 3.6 lx	( 20%): 7.2 lx	
( 25%): 8.9 lx	( 30%): 10.7 lx	
( 40%): 14.3 lx	( 50%): 17.9 lx	
( 60%): 21.5 lx	( 70%): 25.0 lx	
( 80%): 28.6 lx	( 90%): 32.2 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:

## Area Flux Table

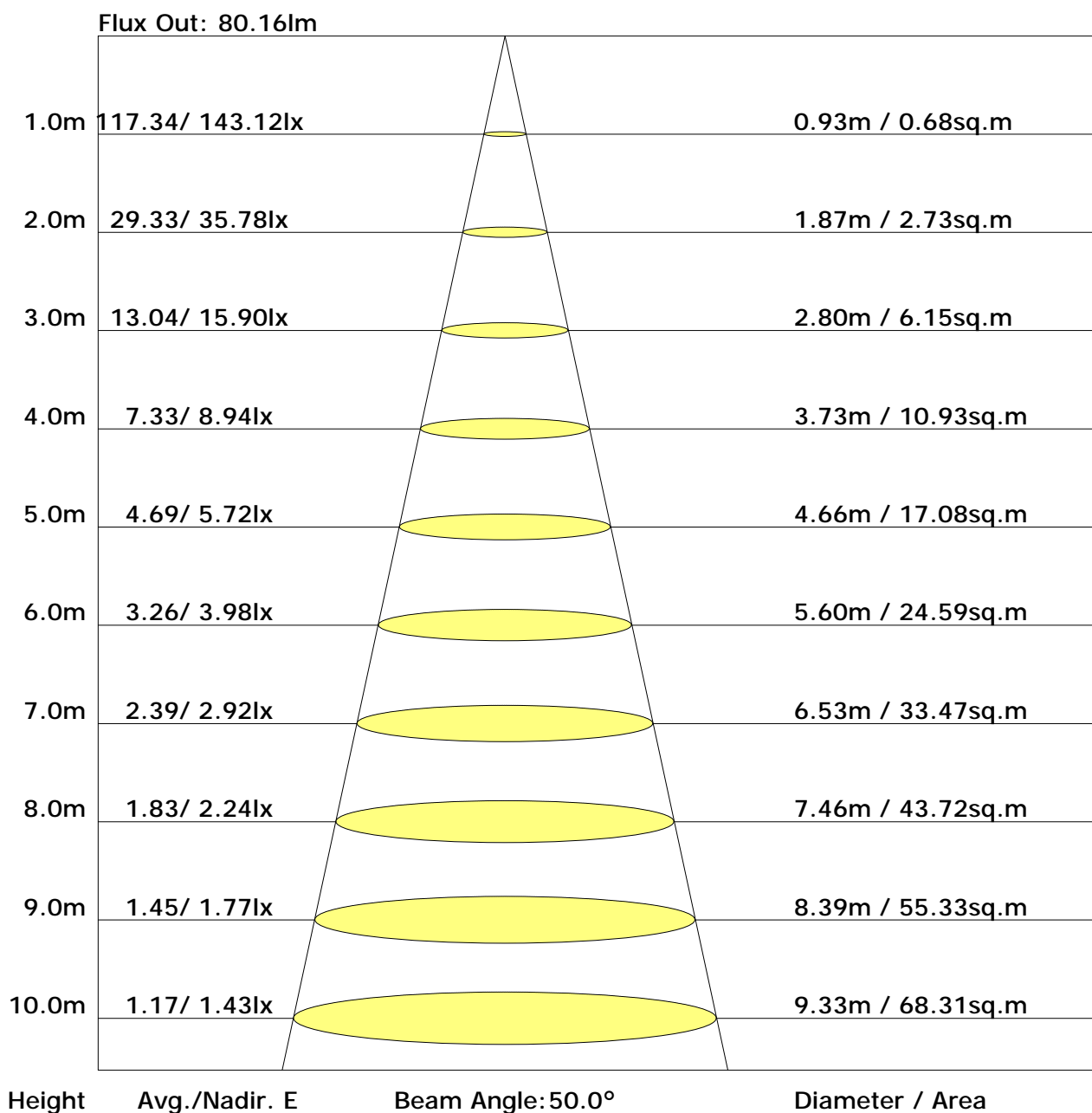
Unit: lm

Vertical plane		-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	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.0	0.8	0.6
		0.0	0.1	0.3	0.4	0.6	0.8	0.9	1.0	1.0	0.9	0.8	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0	4.3	4.1
		0.0	0.2	0.4	0.7	1.0	1.3	1.5	1.7	1.7	1.6	1.5	1.3	1.1	0.9	0.7	0.5	0.4	0.3	0.0	10.4	10.2
		0.0	0.2	0.5	0.9	1.3	1.8	2.1	2.3	2.4	2.3	2.1	1.9	1.7	1.5	1.3	1.0	0.8	0.6	0.0	18.3	18.1
		0.0	0.3	0.6	1.1	1.7	2.2	2.6	3.0	3.0	2.8	2.5	2.3	2.1	2.0	1.7	1.3	1.0	0.8	0.0	27.0	26.7
		0.1	0.3	0.7	1.3	1.9	2.5	3.0	3.4	3.7	3.9	3.8	3.6	3.4	3.2	2.9	2.6	2.3	2.1	0.1	35.2	35.0
		0.1	0.3	0.8	1.4	2.1	2.8	3.4	3.7	4.1	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	42.2	41.8
		0.1	0.3	0.9	1.5	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	46.8	46.4
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	48.5	48.2
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	47.3	47.0
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	43.1	42.8
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	36.6	36.2
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	28.4	28.1
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	19.7	19.3
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	11.6	11.2
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	5.2	4.7
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	1.3	0.7
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	0.1	0.0
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	2.5	0.8
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	7.9	7.3
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	14.3	14.1
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	20.6	20.5
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	26.2	26.2
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	31.0	30.9
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	34.6	34.6
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	37.1	37.1
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	38.4	38.4
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	38.4	38.4
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	37.2	37.1
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	34.8	34.7
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	31.2	31.1
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	26.5	26.4
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	20.9	20.8
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	14.6	14.4
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	7.6	7.3
		0.1	0.3	0.9	1.6	2.3	3.1	3.7	4.1	4.3	4.3	4.3	4.1	3.9	3.7	3.4	3.0	2.6	2.3	0.1	2.7	1.0

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

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	24.6	26.2	24.9	26.5	26.9	25.5	27.1	25.9	27.5	27.8
3H	26.0	27.5	26.4	27.8	28.2	27.2	28.7	27.6	29.1	29.4
4H	26.4	27.8	26.8	28.1	28.5	27.8	29.3	28.3	29.6	30.0
6H	26.5	27.8	27.0	28.2	28.6	28.3	29.6	28.7	29.9	30.4
8H	26.6	27.8	27.0	28.2	28.6	28.4	29.6	28.8	30.0	30.4
12H	26.6	27.7	27.0	28.1	28.6	28.4	29.6	28.9	30.0	30.5
X=4H Y=2H	25.2	26.6	25.6	26.9	27.3	26.2	27.6	26.6	27.9	28.3
3H	26.7	27.9	27.2	28.3	28.7	28.1	29.3	28.5	29.7	30.1
4H	27.2	28.3	27.7	28.7	29.2	28.9	29.9	29.3	30.4	30.8
6H	27.4	28.4	27.9	28.8	29.3	29.4	30.3	29.9	30.8	31.2
8H	27.5	28.3	27.9	28.8	29.3	29.5	30.4	30.0	30.9	31.4
12H	27.5	28.3	28.0	28.7	29.2	29.6	30.4	30.1	30.9	31.4
X=8H Y=4H	27.4	28.3	27.9	28.8	29.2	29.2	30.1	29.7	30.5	31.0
6H	27.7	28.4	28.2	28.9	29.4	29.8	30.6	30.4	31.1	31.6
8H	27.7	28.4	28.3	28.9	29.4	30.1	30.7	30.6	31.3	31.8
12H	27.8	28.3	28.3	28.8	29.4	30.2	30.8	30.7	31.3	31.9
X=12H Y=4H	27.5	28.2	27.9	28.7	29.2	29.3	30.1	29.8	30.5	31.0
6H	27.7	28.4	28.3	28.9	29.4	30.0	30.6	30.5	31.1	31.7
8H	27.8	28.4	28.3	28.9	29.4	30.2	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	0.78	0.86	0.91	0.95	0.99	1.02
	0.30		0.47	0.58	0.65	0.71	0.80	0.85	0.89	0.95	0.99
	0.20		0.41	0.52	0.60	0.66	0.74	0.80	0.85	0.91	0.95
0.50	0.50	0.20	0.54	0.63	0.71	0.76	0.83	0.87	0.91	0.95	0.98
	0.30		0.46	0.57	0.64	0.69	0.77	0.83	0.86	0.92	0.95
	0.20		0.41	0.51	0.59	0.64	0.73	0.78	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	0.91	0.94
	0.30		0.46	0.55	0.62	0.68	0.75	0.80	0.84	0.89	0.92
	0.20		0.41	0.51	0.58	0.63	0.71	0.77	0.81	0.86	0.89
0.00	0.00	0.00	0.38	0.48	0.55	0.60	0.68	0.73	0.76	0.81	0.84
<p>Rating:5W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>											

## 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	1.02	0.84	0.72	0.63	0.50	0.42	0.36	0.28	0.23	
	0.30		0.85	0.72	0.63	0.55	0.45	0.38	0.33	0.26	0.22	
	0.20		0.73	0.63	0.56	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	0.55	0.49	0.40	0.34	0.30	0.24	0.20	
0.30	0.50	0.20	0.95	0.78	0.66	0.58	0.46	0.38	0.33	0.25	0.21	
	0.30		0.81	0.68	0.59	0.52	0.42	0.36	0.31	0.24	0.20	
	0.20		0.71	0.61	0.54	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	
<p>Rating:5W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>												

## 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		0.05	0.07	0.08	0.10	0.12	0.13	0.14	0.16	0.17
0.50	0.50	0.20	0.17	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	0.15	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
<p>Rating:5W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>											