

Report No.: 01

Test Time: 2017/2/6 10:39

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RB241.530PH

Luminous Length (mm): 500mm

Luminous Height (mm): 1mm

Current: 0.100 A

Power Factor: 1.000

Luminaire Description: RB241.530PH

Luminous Width (mm): 8mm

Voltage: 24.0 V

Power: 2.40 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 216.4 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H114.3

Vertical Diffuse Angle(50%): V114.6

Luminaire Efficacy Rating (LER): 90

Max. Intensity: 73.48 cd

Total Rated Lamp Lumens: 216.4 lm

Efficiency: 100%

Upward Ratio: 1%

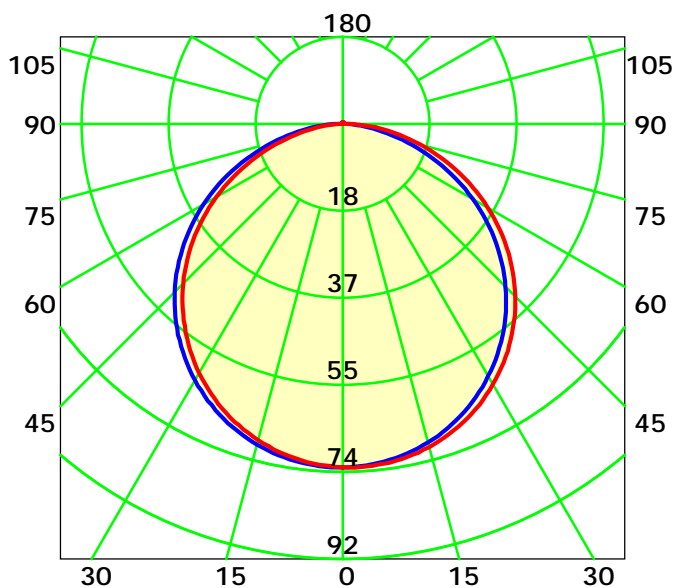
Central Intensity: 73.38 cd

Pos of Max. Intensity: H120 V3

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 114.5° 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

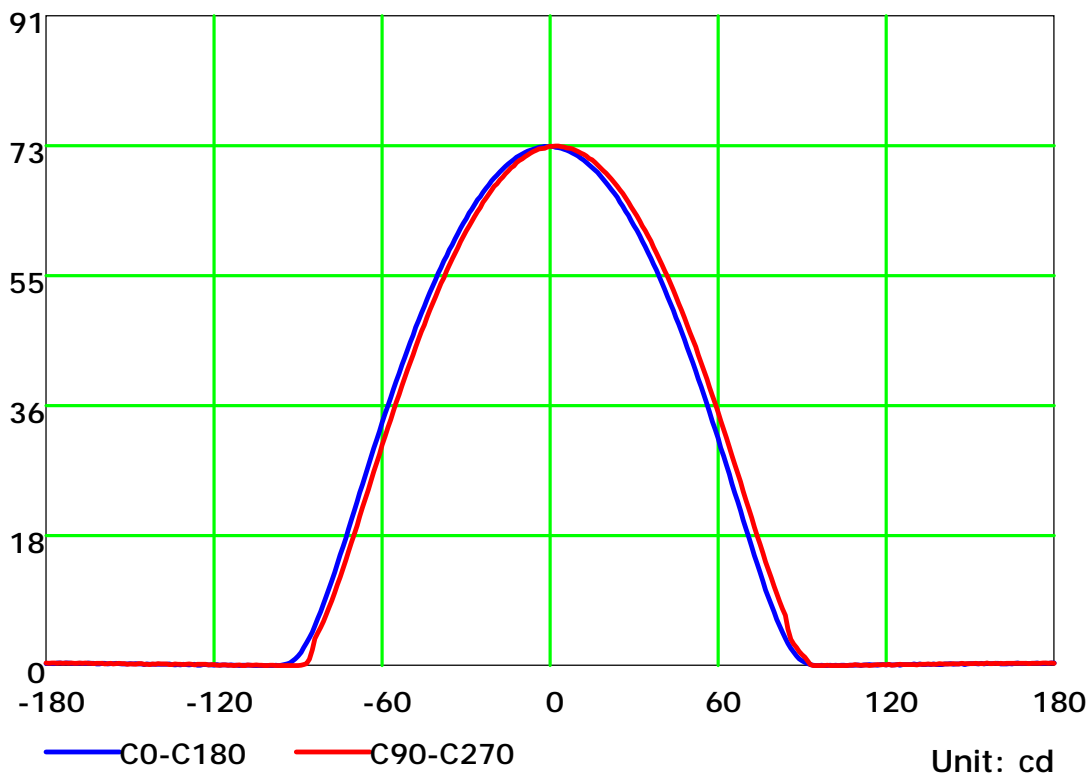
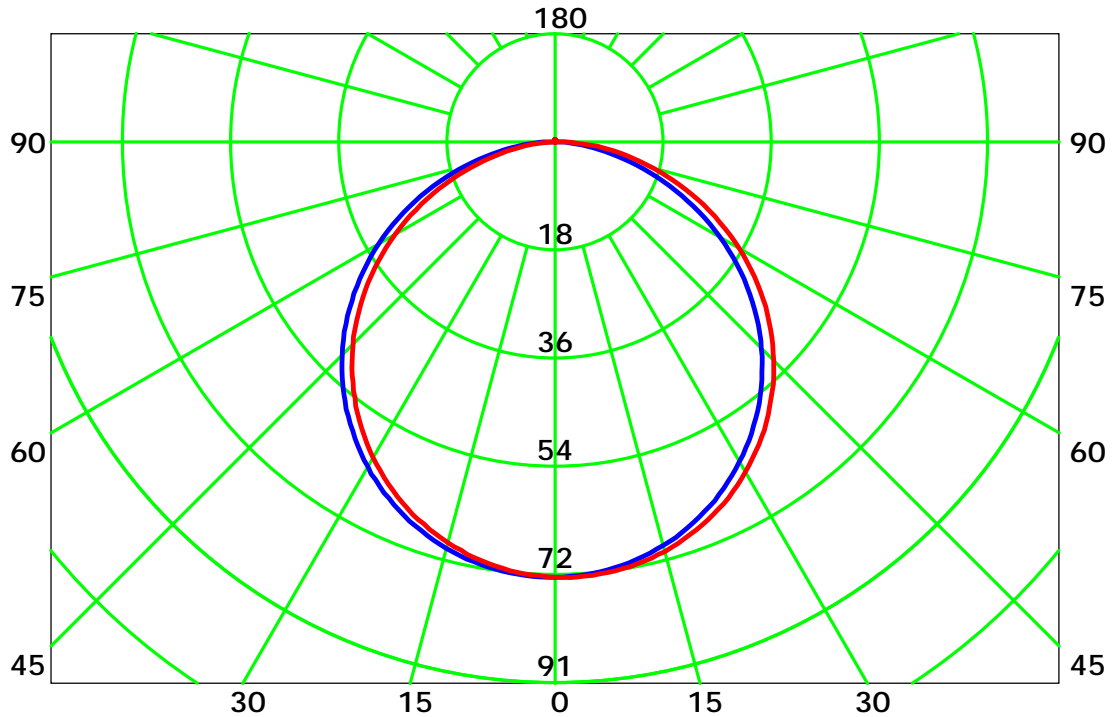
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

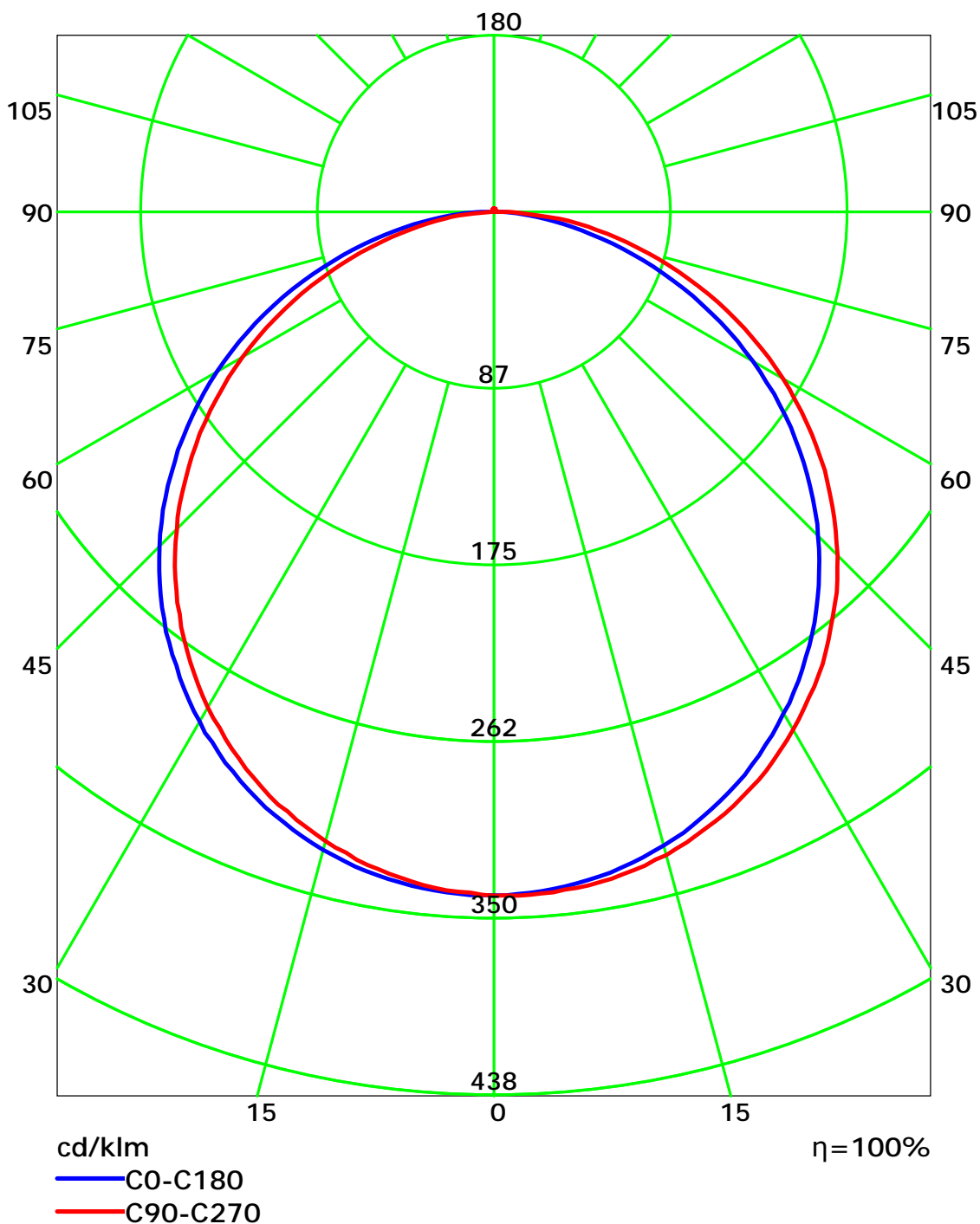
## Luminous Intensity Distribution Curve



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:

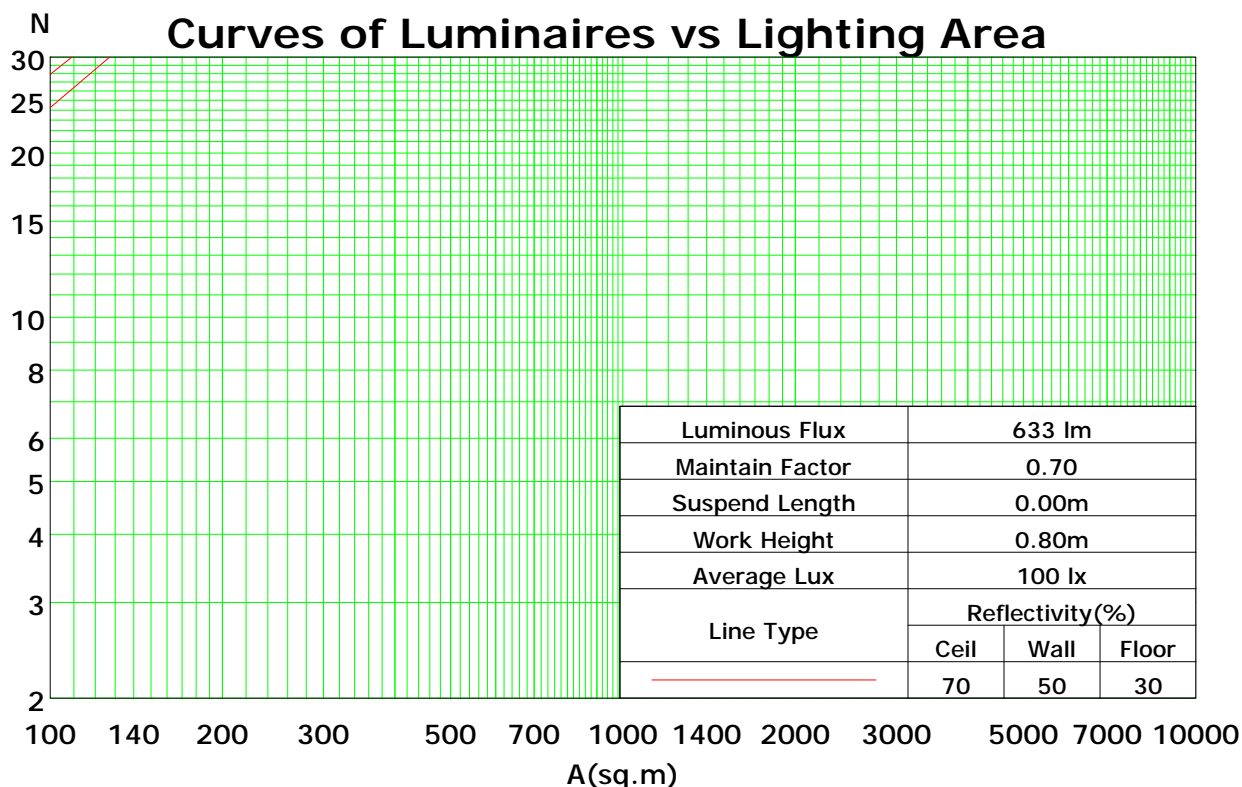
## Coefficients Of Utilization - Zonal Cavity Method

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	102	102	102	99
1	108	103	99	95	106	101	97	94	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	76	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	46	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

Spacing Criteria (0-180): 1.27

Spacing Criteria (90-270): 1.27

Spacing Criteria (Diagonal): 1.39



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

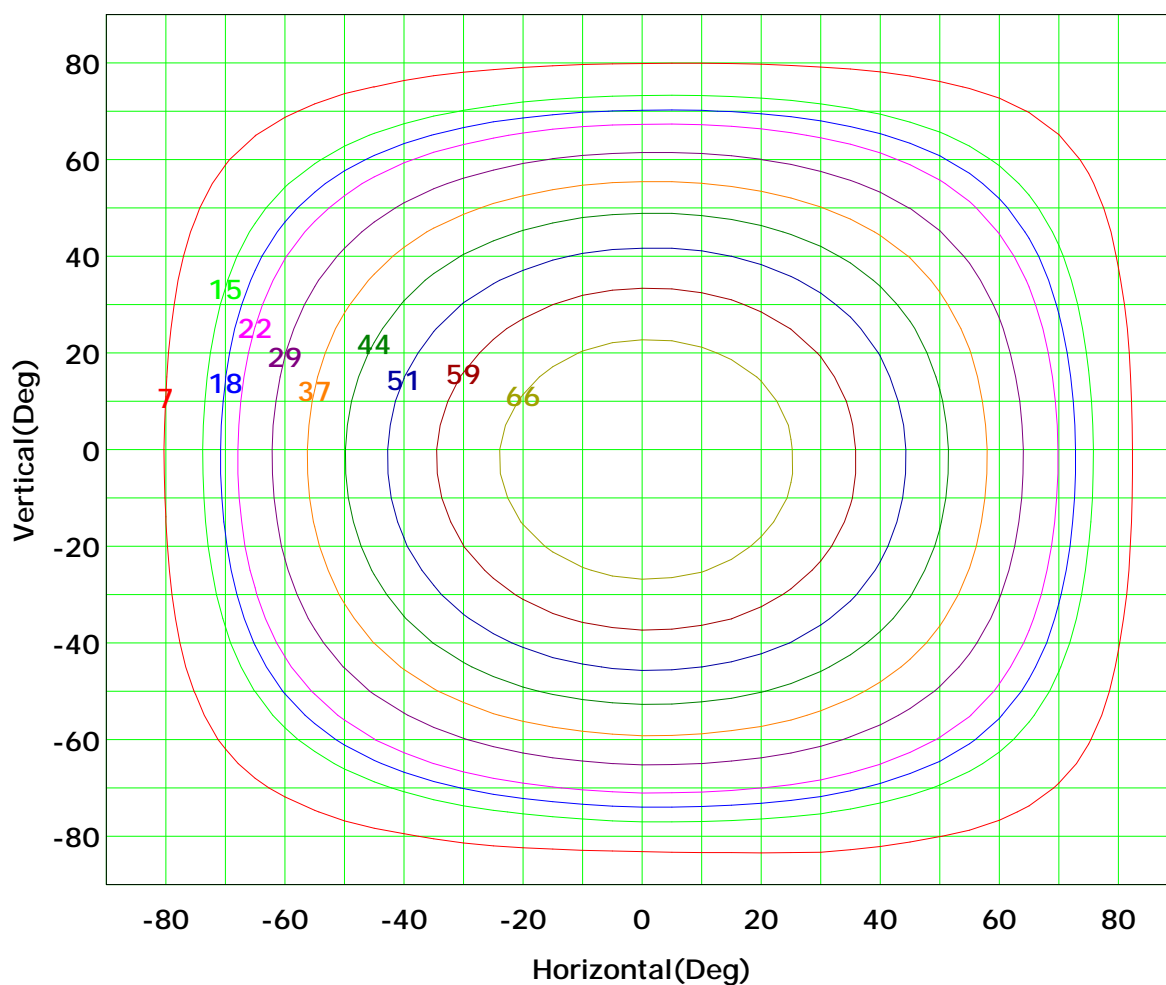
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Isocandela (rectangle)



Imax (100%): 73 cd

( 10%):	7 cd	( 20%):	15 cd
( 25%):	18 cd	( 30%):	22 cd
( 40%):	29 cd	( 50%):	37 cd
( 60%):	44 cd	( 70%):	51 cd
( 80%):	59 cd	( 90%):	66 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

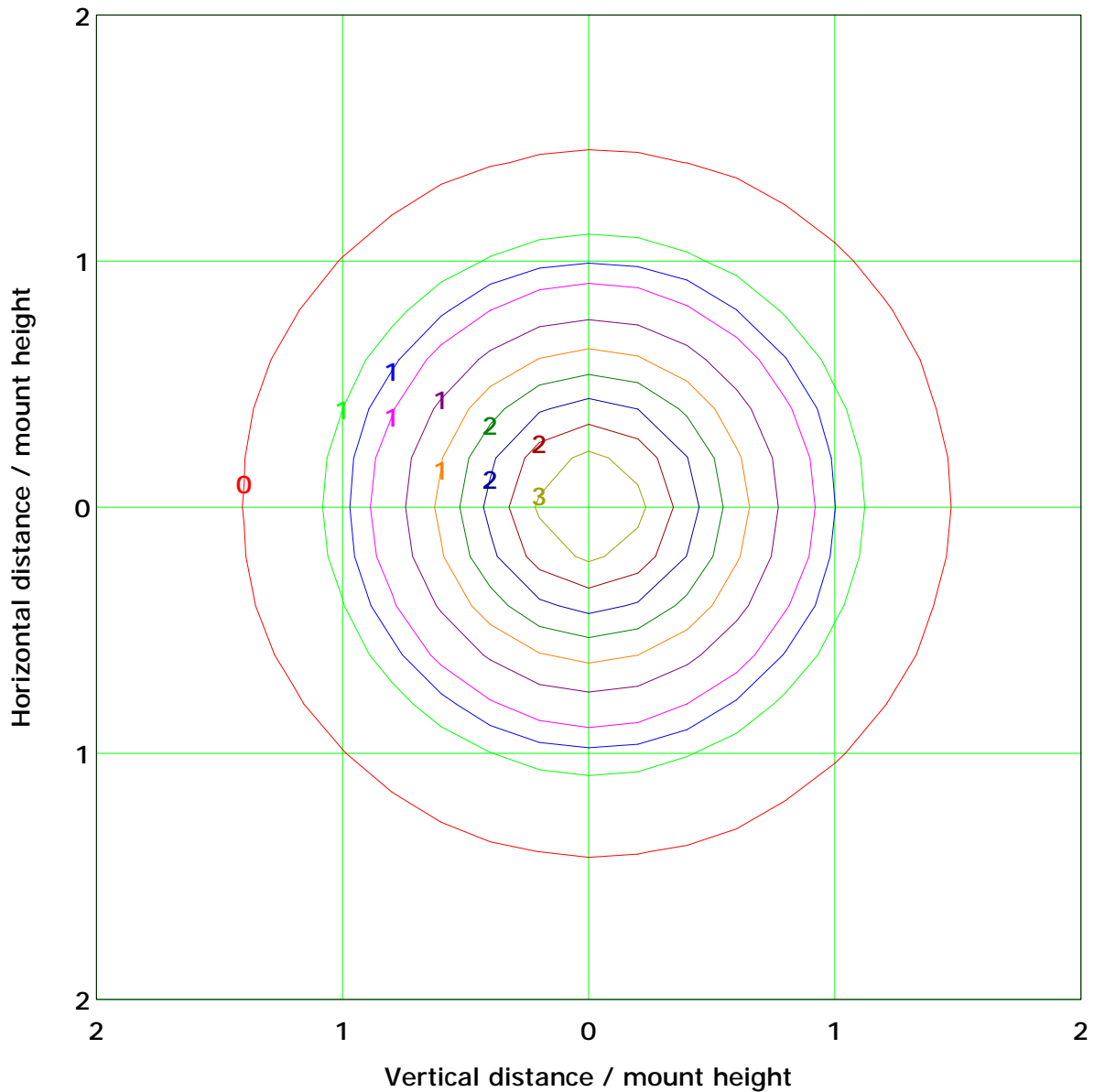
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 2.9 lx

( 10%): 0.3 lx	( 20%): 0.6 lx
( 25%): 0.7 lx	( 30%): 0.9 lx
( 40%): 1.2 lx	( 50%): 1.5 lx
( 60%): 1.8 lx	( 70%): 2.1 lx
( 80%): 2.3 lx	( 90%): 2.6 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

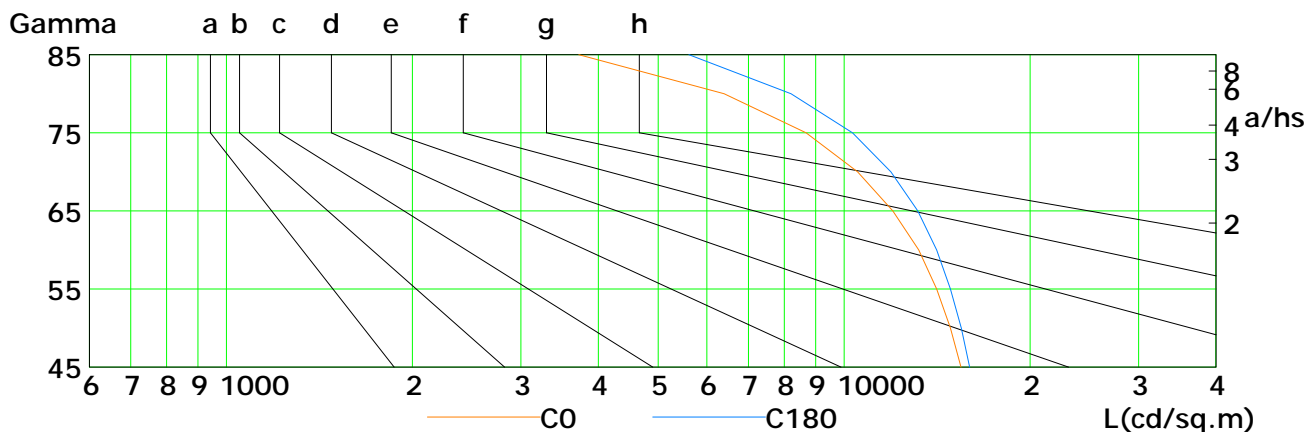
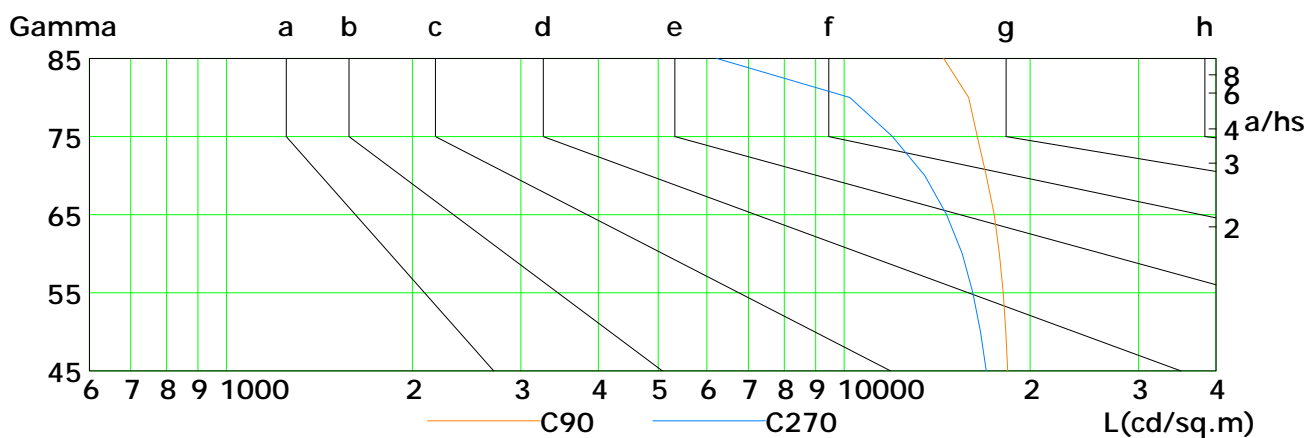
Humidity: 60%

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	15462	14860	14128	13206	11998	10517	8681	6394	3720
C90	18408	18267	18106	17848	17506	16989	16443	15915	14498
C180	15962	15476	14864	14118	13169	11905	10315	8206	5610
C270	16990	16626	16164	15546	14655	13507	11975	10221	6226

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

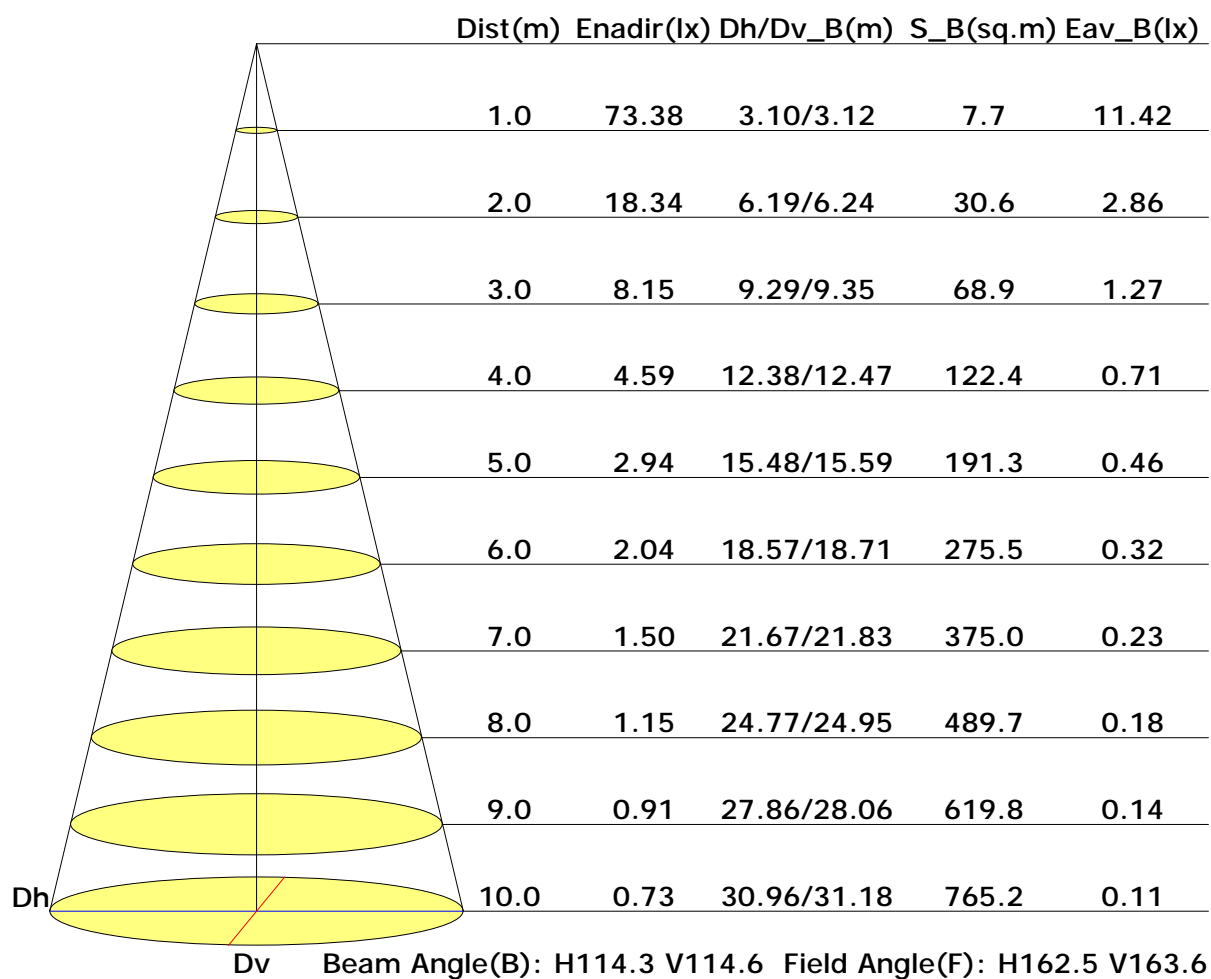
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

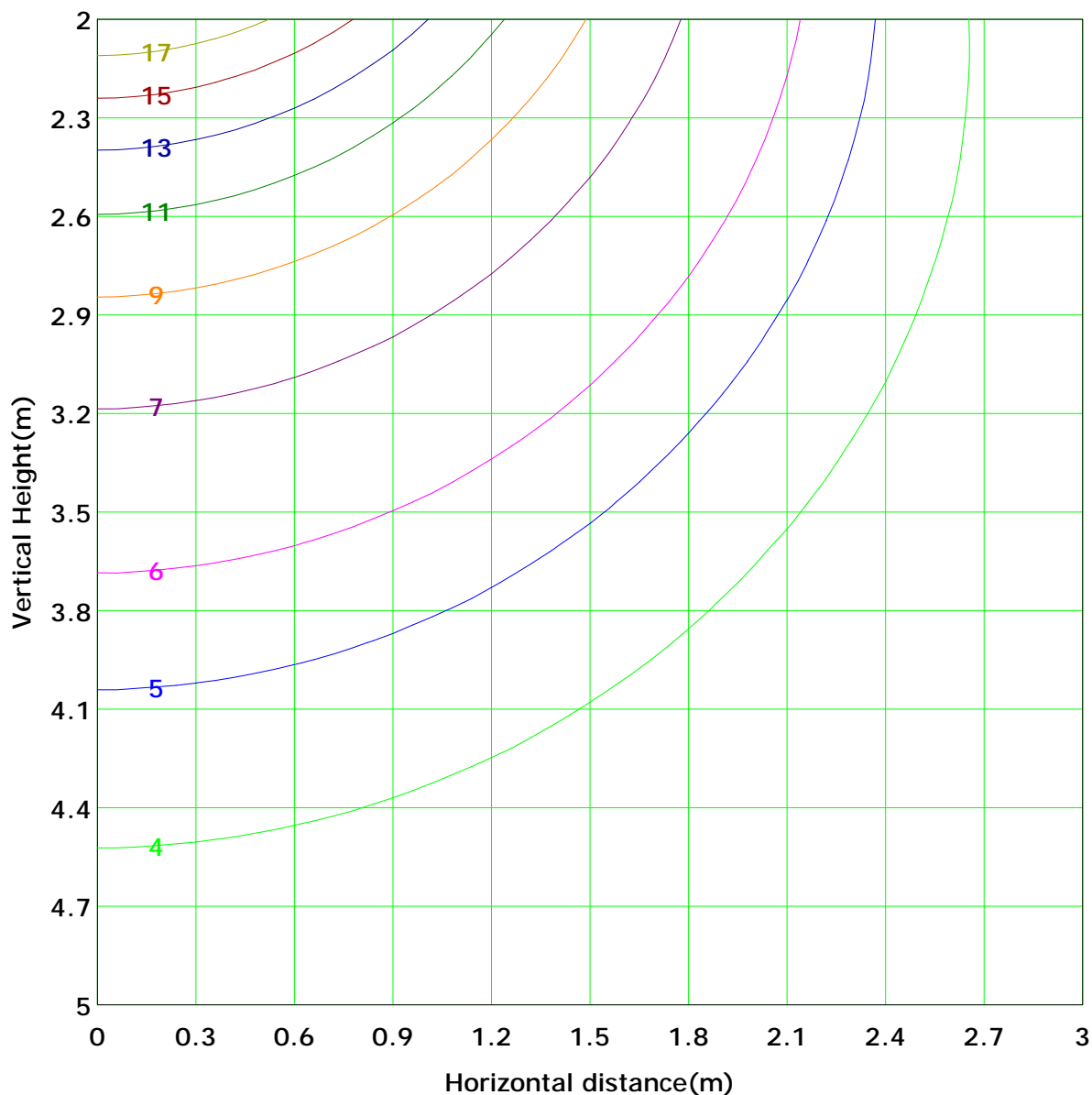
Inspector:

## Illuminance at a Distance





## Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 18.3 lx
( 10%): 1.8 lx	( 20%): 3.7 lx	
( 25%): 4.6 lx	( 30%): 5.5 lx	
( 40%): 7.3 lx	( 50%): 9.2 lx	
( 60%): 11.0 lx	( 70%): 12.8 lx	
( 80%): 14.7 lx	( 90%): 16.5 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:

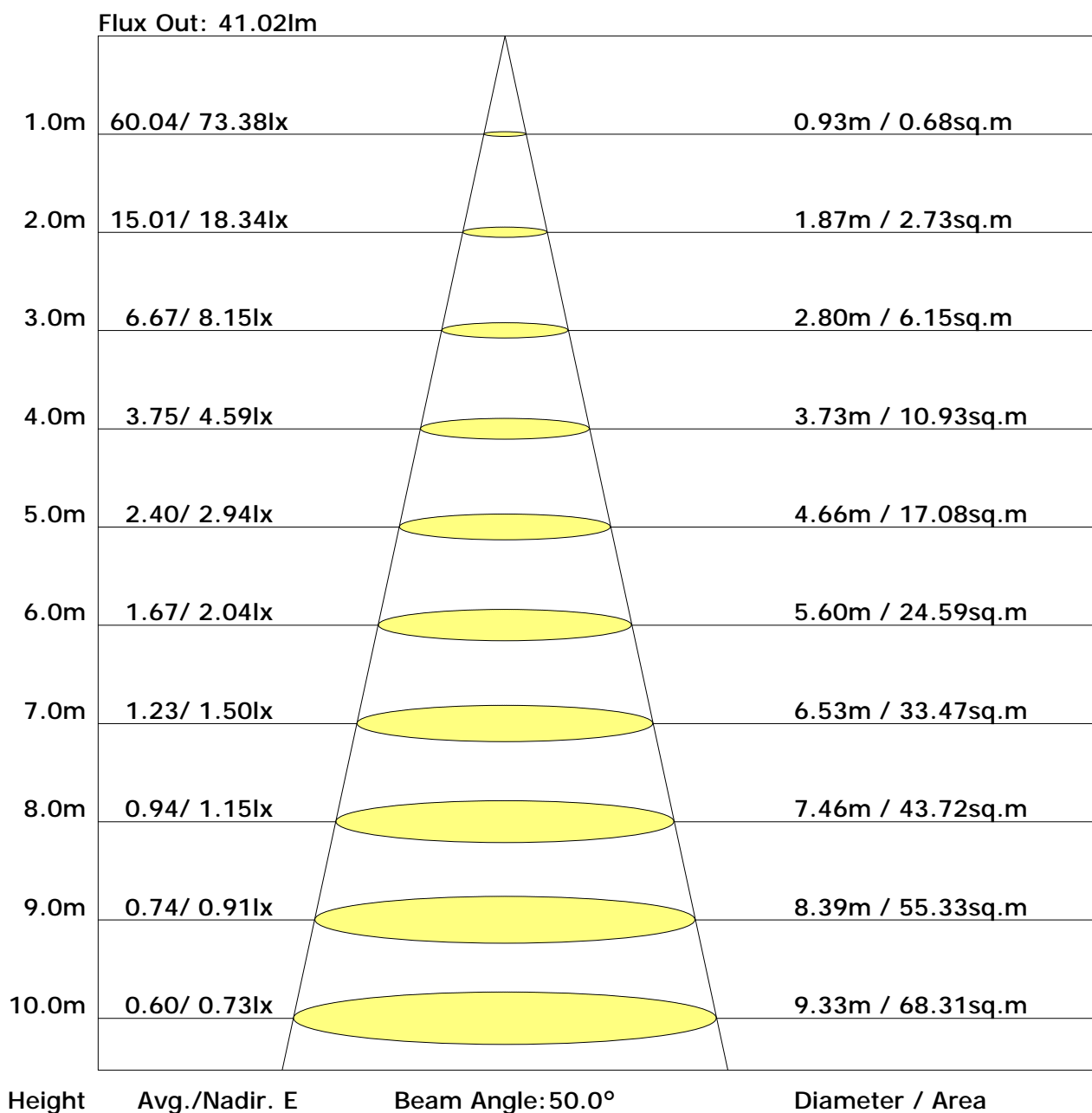
## Area Flux Table

[illegible]

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:

## 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	26.9	28.5	27.3	28.8	29.2	27.2	28.8	27.5	29.1	29.4
3H	28.6	30.1	29.0	30.4	30.8	29.0	30.4	29.3	30.8	31.1
4H	29.2	30.6	29.6	31.0	31.4	29.6	31.0	30.0	31.4	31.8
6H	29.6	30.9	30.1	31.3	31.7	30.1	31.4	30.5	31.8	32.2
8H	29.8	31.0	30.2	31.4	31.8	30.3	31.5	30.7	31.9	32.3
12H	29.8	31.0	30.3	31.4	31.9	30.4	31.6	30.8	32.0	32.4
X=4H Y=2H	27.4	28.8	27.8	29.2	29.6	27.8	29.2	28.2	29.6	29.9
3H	29.4	30.5	29.8	30.9	31.3	29.8	31.0	30.2	31.4	31.8
4H	30.1	31.1	30.5	31.6	32.0	30.6	31.7	31.0	32.1	32.5
6H	30.6	31.5	31.1	32.0	32.5	31.2	32.2	31.7	32.6	33.1
8H	30.8	31.6	31.2	32.1	32.6	31.4	32.3	31.9	32.8	33.2
12H	30.9	31.7	31.4	32.2	32.6	31.6	32.4	32.1	32.9	33.3
X=8H Y=4H	30.3	31.2	30.8	31.6	32.1	30.9	31.8	31.4	32.2	32.7
6H	30.9	31.7	31.4	32.2	32.6	31.6	32.4	32.2	32.9	33.4
8H	31.2	31.8	31.7	32.3	32.8	32.0	32.6	32.5	33.1	33.6
12H	31.3	31.9	31.8	32.4	33.0	32.2	32.8	32.7	33.3	33.8
X=12H Y=4H	30.3	31.1	30.8	31.6	32.1	31.0	31.7	31.4	32.2	32.7
6H	31.0	31.6	31.5	32.1	32.7	31.7	32.4	32.3	32.9	33.4
8H	31.2	31.8	31.7	32.3	32.9	32.1	32.6	32.6	33.1	33.7

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	0.56	0.66	0.73	0.79	0.86	0.91	0.95	1.00	1.03
	0.30		0.48	0.58	0.66	0.72	0.80	0.86	0.90	0.95	0.99
	0.20		0.42	0.52	0.60	0.66	0.75	0.81	0.85	0.92	0.96
0.50	0.50	0.20	0.54	0.64	0.71	0.76	0.83	0.88	0.91	0.96	0.98
	0.30		0.47	0.57	0.64	0.70	0.78	0.83	0.87	0.92	0.95
	0.20		0.42	0.52	0.59	0.65	0.73	0.79	0.83	0.89	0.93
0.30	0.50	0.20	0.52	0.62	0.69	0.73	0.80	0.85	0.88	0.92	0.94
	0.30		0.46	0.56	0.63	0.68	0.76	0.81	0.84	0.89	0.92
	0.20		0.41	0.51	0.58	0.64	0.72	0.77	0.81	0.86	0.90
0.00	0.00	0.00	0.39	0.49	0.56	0.61	0.68	0.73	0.77	0.82	0.85
<p>Rating:2W 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	1.01	0.84	0.71	0.62	0.50	0.41	0.35	0.27	0.22
	0.30		0.84	0.71	0.62	0.55	0.45	0.38	0.33	0.26	0.21
	0.20		0.72	0.62	0.55	0.49	0.41	0.35	0.31	0.24	0.20
0.50	0.50	0.20	0.97	0.80	0.68	0.60	0.47	0.43	0.34	0.26	0.21
	0.30		0.82	0.70	0.60	0.53	0.43	0.36	0.32	0.25	0.20
	0.20		0.72	0.62	0.54	0.48	0.40	0.34	0.30	0.24	0.20
0.30	0.50	0.20	0.95	0.77	0.66	0.57	0.45	0.38	0.32	0.25	0.20
	0.30		0.81	0.68	0.59	0.52	0.42	0.35	0.30	0.24	0.20
	0.20		0.71	0.61	0.53	0.47	0.39	0.33	0.29	0.23	0.19
0.00	0.00	0.00	0.61	0.51	0.44	0.39	0.31	0.26	0.23	0.18	0.15
<p>Rating: 2W 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	0.21	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	0.11	0.13	0.14	0.16	0.17
0.50	0.50	0.20	0.16	0.17	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	0.19	0.20	0.20	0.20
	0.30		0.10	0.11	0.12	0.13	0.15	0.16	0.16	0.18	0.18
	0.20		0.05	0.06	0.08	0.09	0.11	0.12	0.14	0.15	0.16
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<p>Rating:2W 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>											