

Report No.: 01

Test Time: 2017/2/5 15:01

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RBMT243.024PH

Luminous Length (mm): 500mm

Luminous Height (mm): 1mm

Current: 0.206 A

Power Factor: 1.000

Luminaire Description: RBMT243.024PH

Luminous Width (mm): 12mm

Voltage: 24.0 V

Power: 4.95 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 366 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H114.7

Vertical Diffuse Angle(50%): V114.7

Luminaire Efficacy Rating (LER): 74

Max. Intensity: 124.49 cd

Total Rated Lamp Lumens: 366.0 lm

Efficiency: 100%

Upward Ratio: 1%

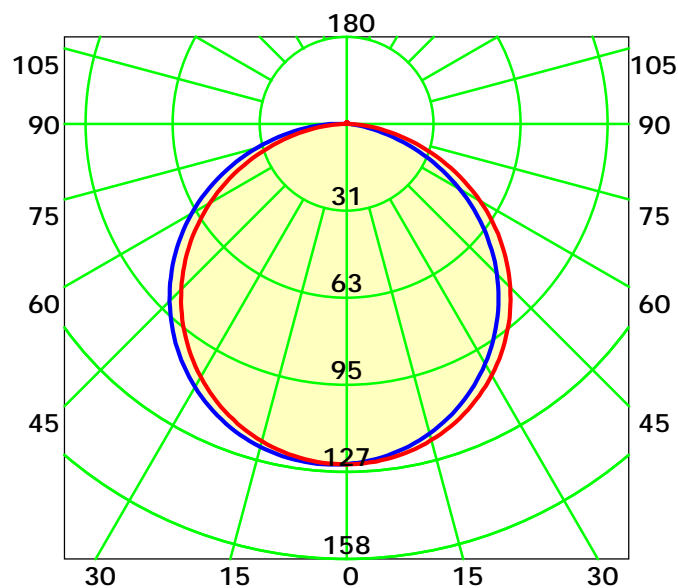
Central Intensity: 124.12 cd

Pos of Max. Intensity: H180 V5

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 114.7° 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

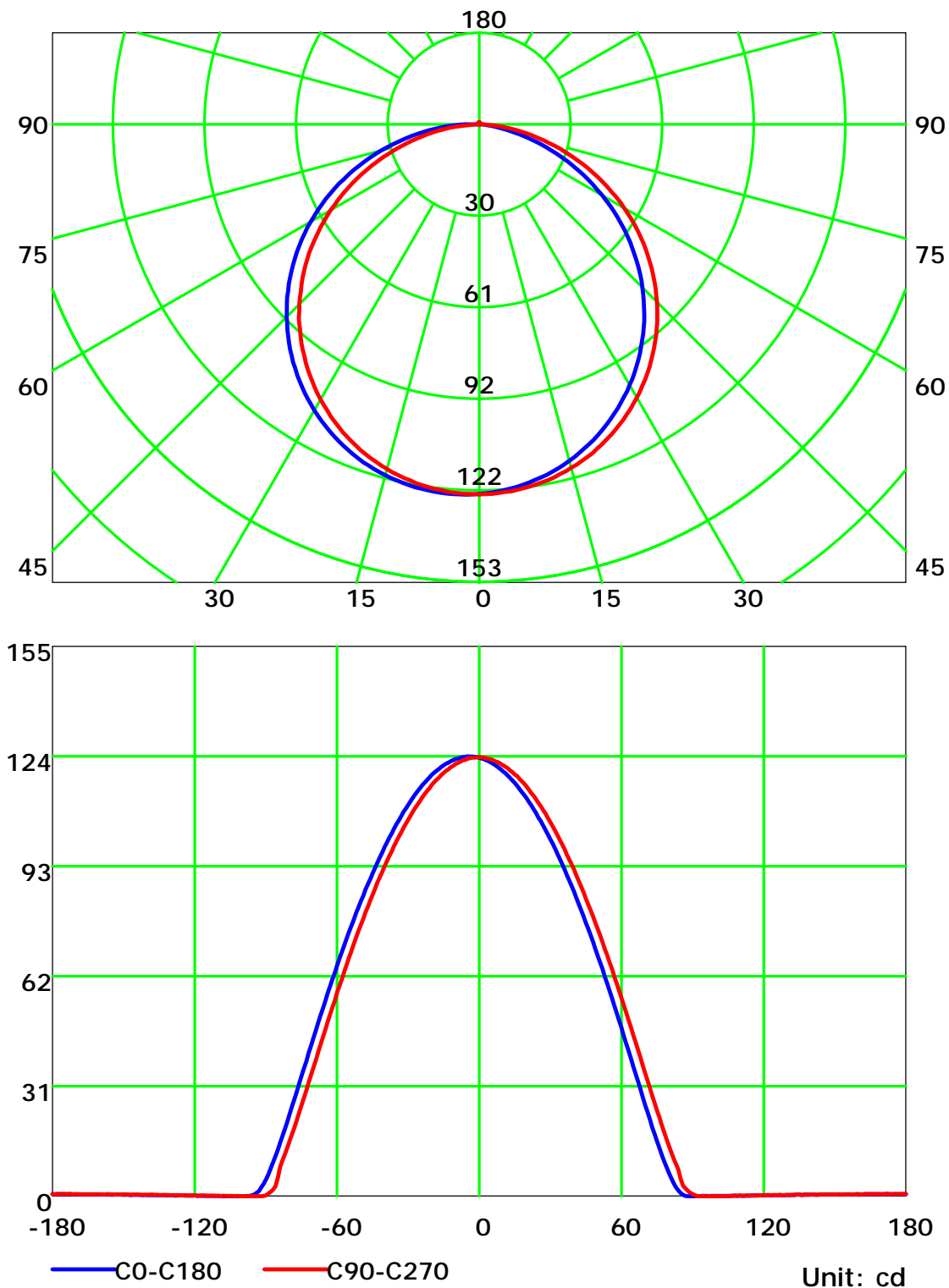
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

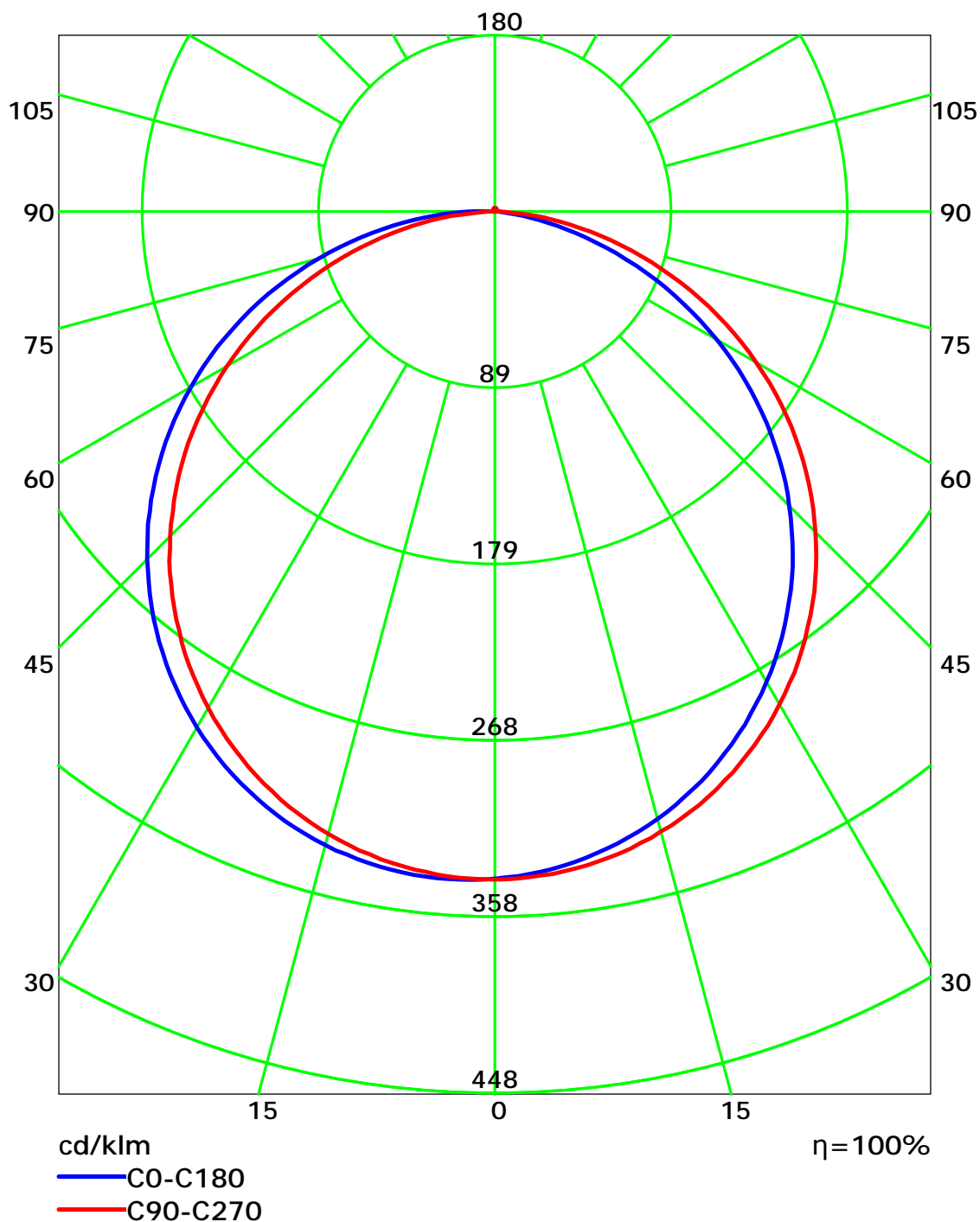
## Luminous Intensity Distribution Curve



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:

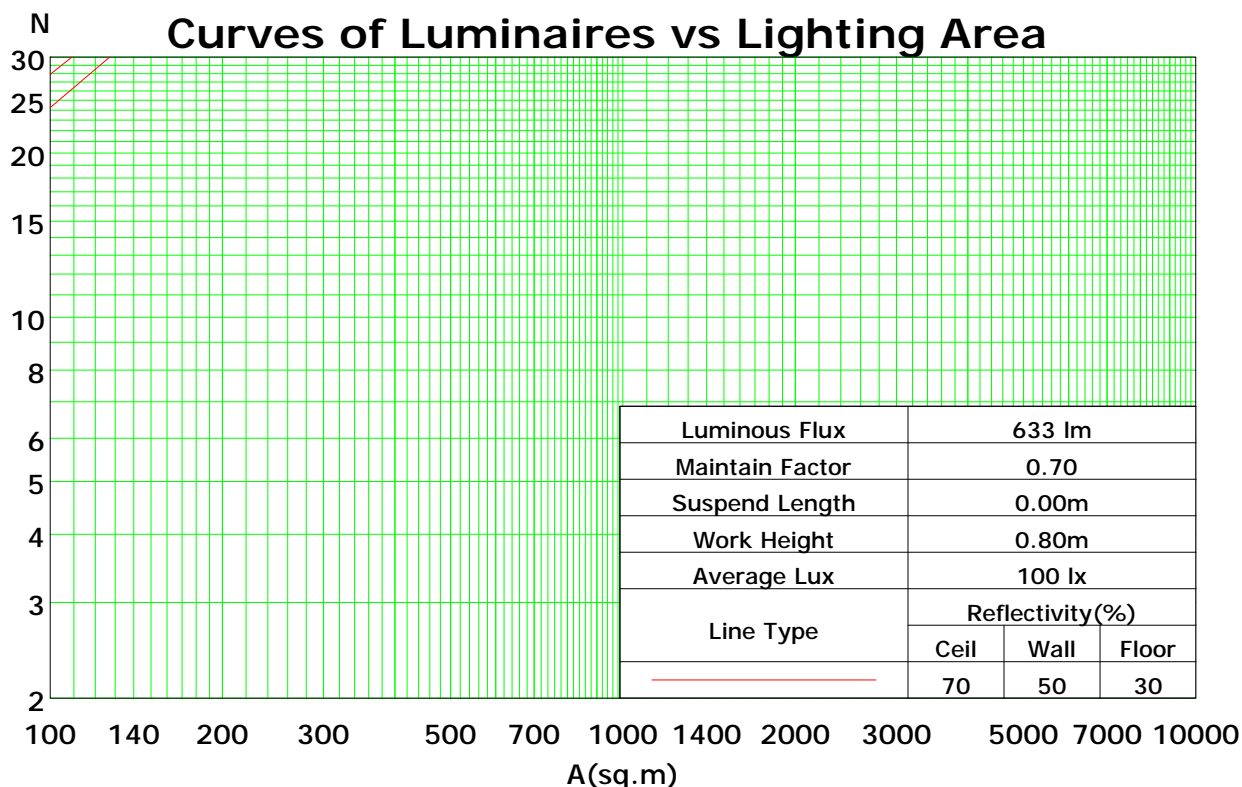
## Coefficients Of Utilization - Zonal Cavity Method

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	94	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

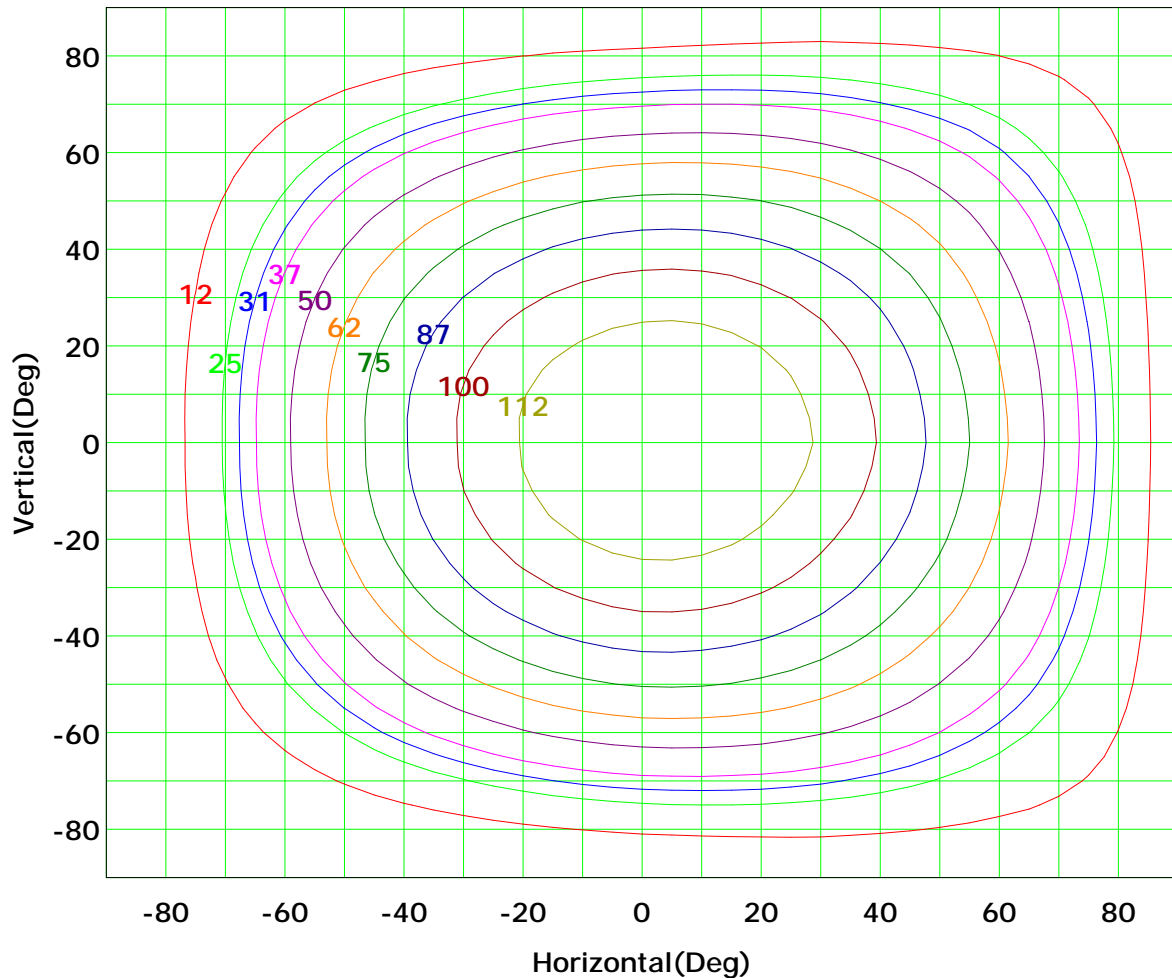
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Isocandela (rectangle)



I<sub>max</sub> (100%): 124 cd

( 10%):	12 cd	( 20%):	25 cd
( 25%):	31 cd	( 30%):	37 cd
( 40%):	50 cd	( 50%):	62 cd
( 60%):	75 cd	( 70%):	87 cd
( 80%):	100 cd	( 90%):	112 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

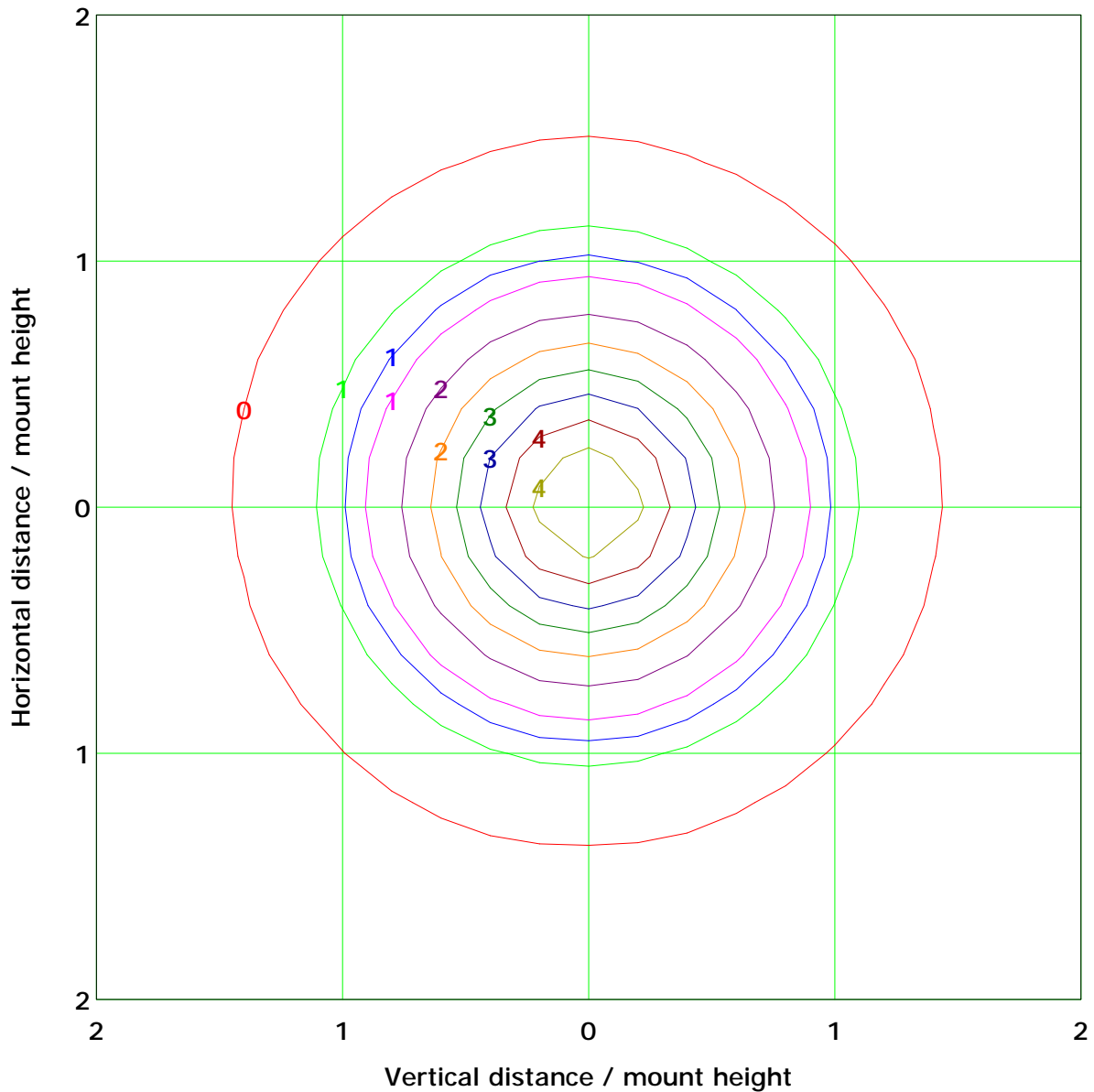
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## IsoLux Plot



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

( 10%): 0.5 lx	( 20%): 1.0 lx
( 25%): 1.2 lx	( 30%): 1.5 lx
( 40%): 2.0 lx	( 50%): 2.5 lx
( 60%): 3.0 lx	( 70%): 3.5 lx
( 80%): 4.0 lx	( 90%): 4.5 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

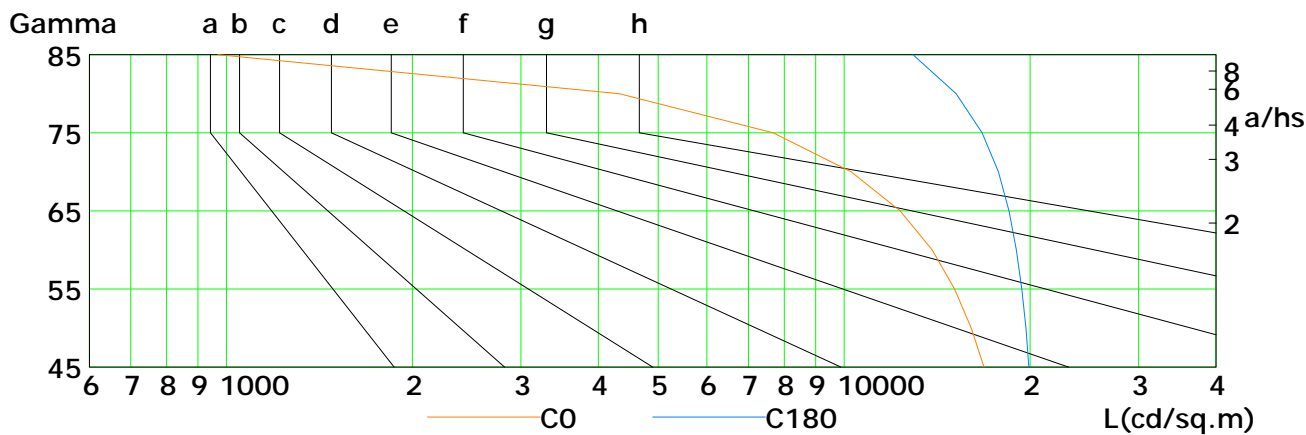
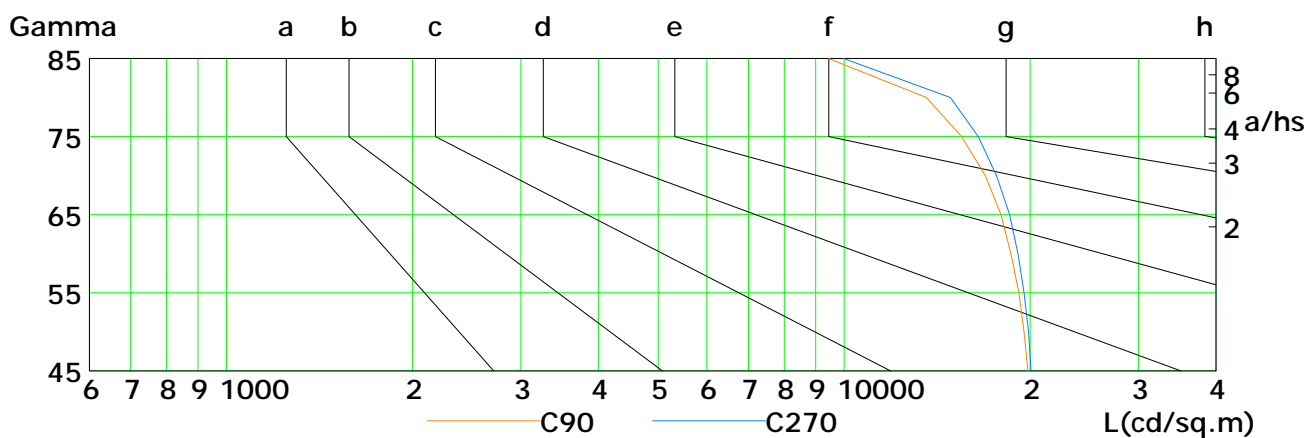
Humidity: 60%

Inspector:

## 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	16853	16067	15100	13897	12322	10270	7677	4328	970
C90	19851	19574	19187	18632	17957	16928	15500	13600	9441
C180	19910	19692	19410	19015	18492	17776	16730	15186	12928
C270	20093	19884	19555	19124	18542	17665	16484	14871	9983

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

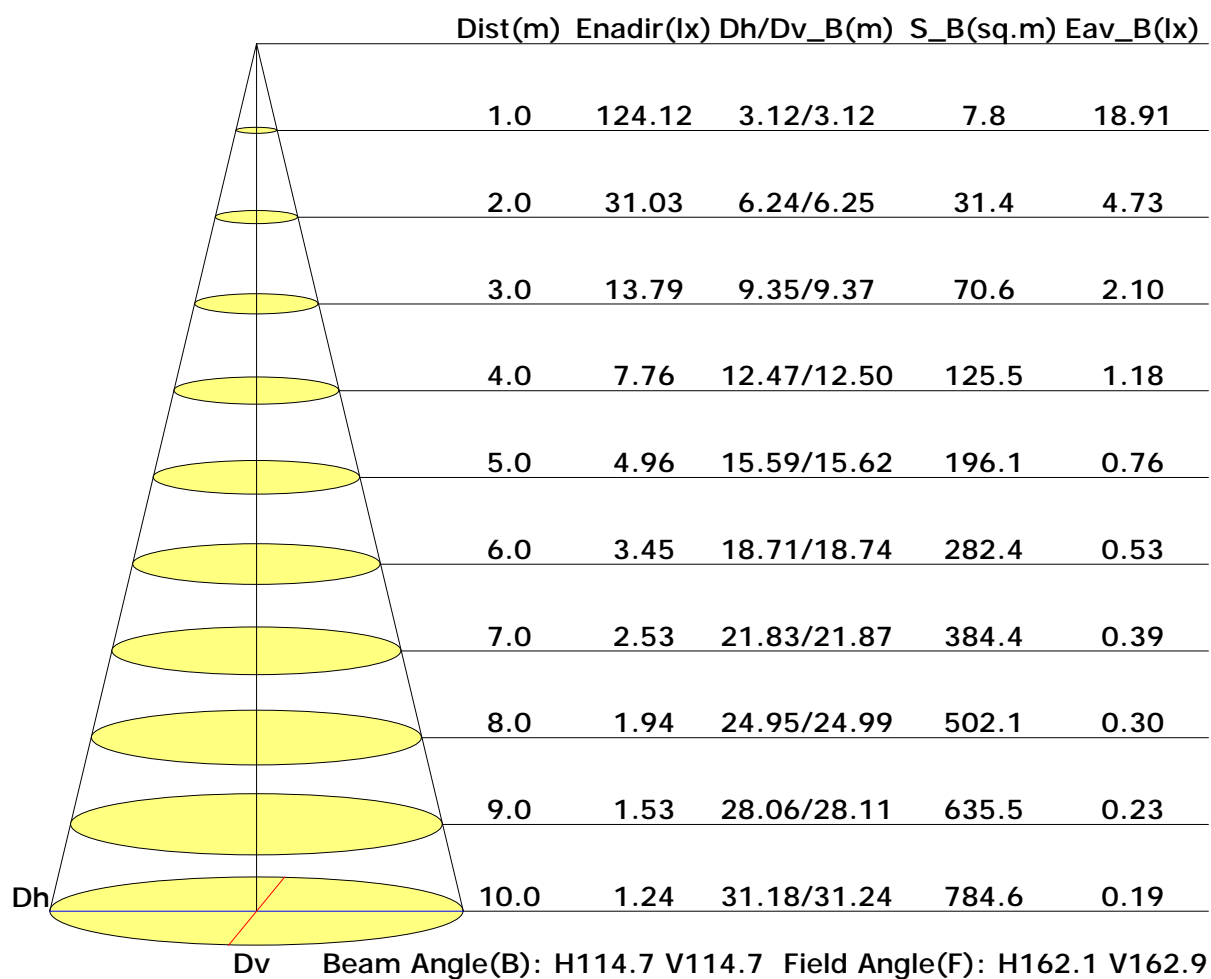
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

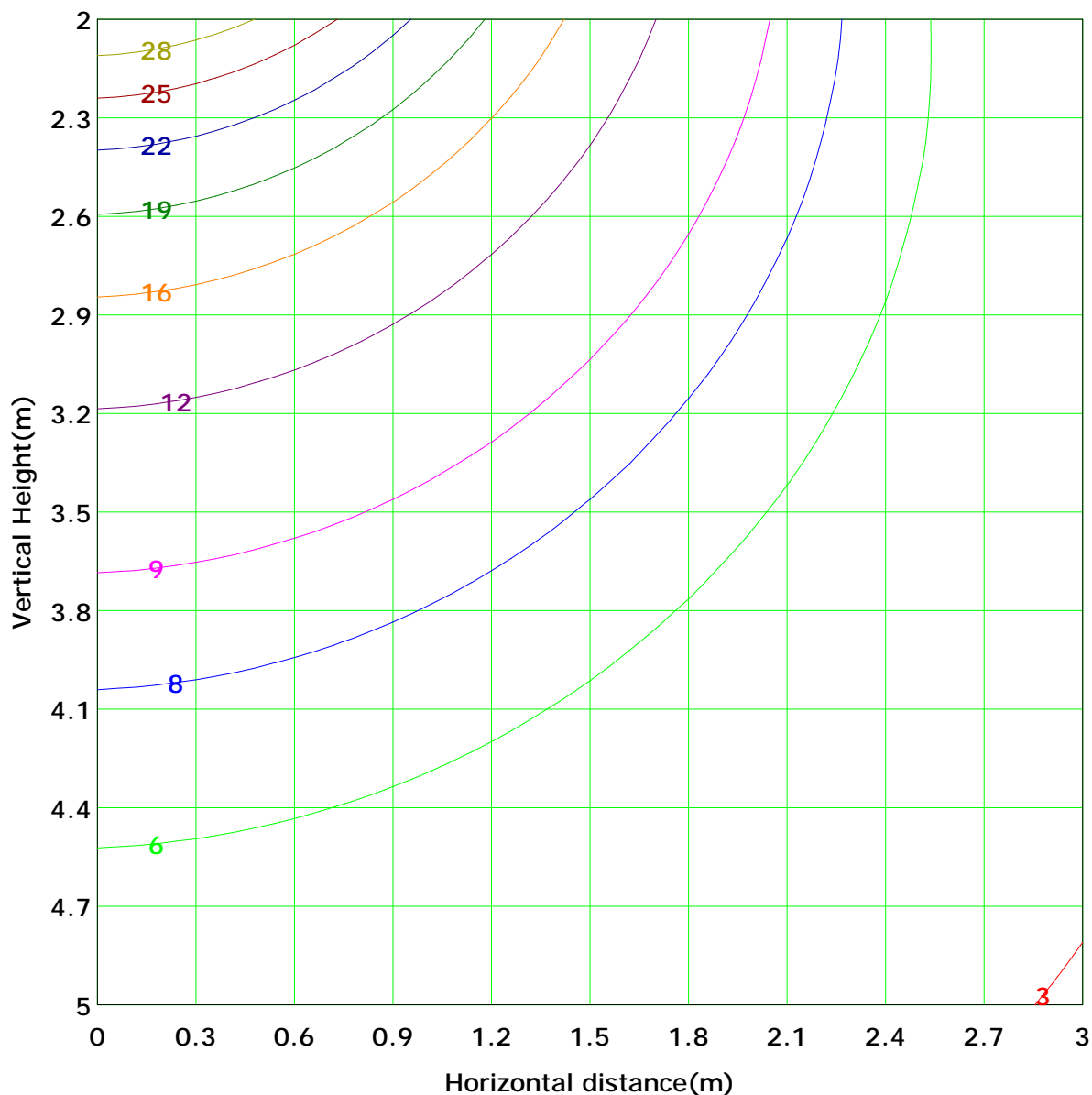
Inspector:

## Illuminance at a Distance





## Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 31.0 lx
( 10%): 3.1 lx	( 20%): 6.2 lx	( 30%): 9.3 lx
( 25%): 7.8 lx	( 40%): 12.4 lx	( 50%): 15.5 lx
( 60%): 18.6 lx	( 70%): 21.7 lx	( 90%): 27.9 lx
( 80%): 24.8 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)
Horizontal plane	-90	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.0	0.0	0.6	0.3
	-80	0.0	0.1	0.2	0.3	0.5	0.6	0.7	0.8	0.8	0.8	0.7	0.7	0.7	0.6	0.5	0.4	0.3	0.0	0.0	3.2	3.0
	-70	0.0	0.1	0.3	0.5	0.8	1.0	1.3	1.4	1.4	1.4	1.3	1.2	1.1	1.0	0.9	0.7	0.5	0.0	0.0	8.1	7.8
	-60	0.0	0.2	0.4	0.7	1.1	1.5	1.8	2.0	2.1	2.1	2.0	1.9	1.7	1.5	1.3	1.1	0.8	0.0	0.0	14.6	14.3
	-50	0.0	0.2	0.5	0.9	1.4	1.8	2.2	2.5	2.6	2.6	2.5	2.4	2.3	2.1	1.9	1.7	1.4	0.0	0.0	21.9	21.6
	-40	0.0	0.2	0.6	1.1	1.6	2.1	2.6	2.9	3.0	3.0	2.9	2.8	2.7	2.5	2.3	2.1	1.8	0.0	0.0	29.1	28.9
	-30	0.0	0.2	0.6	1.1	1.6	2.1	2.6	3.1	3.2	3.2	3.1	3.0	2.9	2.7	2.5	2.3	2.0	0.0	0.0	35.3	35.1
	-20	0.0	0.3	0.7	1.3	1.9	2.5	3.1	3.4	3.6	3.7	3.7	3.6	3.5	3.4	3.2	3.0	2.7	0.0	0.0	39.6	39.4
	-10	0.0	0.3	0.7	1.3	2.0	2.6	3.2	3.6	3.7	3.7	3.7	3.6	3.5	3.4	3.2	3.0	2.7	0.0	0.0	41.6	41.3
	0	0.0	0.3	0.7	1.3	2.0	2.6	3.2	3.6	3.7	3.7	3.7	3.6	3.5	3.4	3.2	3.0	2.7	0.0	0.0	40.8	40.6
	10	0.0	0.3	0.7	1.3	1.9	2.5	3.1	3.4	3.6	3.7	3.7	3.6	3.5	3.4	3.2	3.0	2.7	0.0	0.0	37.5	37.2
	20	0.0	0.3	0.7	1.2	1.9	2.5	3.0	3.4	3.6	3.6	3.6	3.5	3.4	3.3	3.1	2.9	2.7	0.0	0.0	32.0	31.7
	30	0.0	0.2	0.6	1.1	1.7	2.3	2.8	3.2	3.4	3.4	3.4	3.3	3.2	3.1	2.9	2.7	2.5	0.0	0.0	25.1	24.8
	40	0.0	0.2	0.6	1.0	1.5	2.1	2.6	3.0	3.2	3.3	3.3	3.3	3.2	3.1	3.0	2.9	2.8	0.0	0.0	17.6	17.3
	50	0.0	0.2	0.5	0.9	1.3	1.8	2.1	2.5	2.8	3.0	3.1	3.1	3.0	2.9	2.8	2.7	2.6	0.0	0.0	10.5	10.2
	60	0.0	0.2	0.4	0.7	1.0	1.4	1.7	2.0	2.3	2.5	2.6	2.6	2.5	2.4	2.3	2.2	2.1	0.0	0.0	4.8	4.4
	70	0.0	0.1	0.3	0.5	0.7	1.0	1.2	1.3	1.4	1.4	1.4	1.3	1.2	1.1	1.0	0.9	0.8	0.0	0.0	1.3	0.8
	80	0.0	0.1	0.2	0.3	0.4	0.6	0.7	0.7	0.8	0.7	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0	0.1	0.0
	90	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	364	359

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

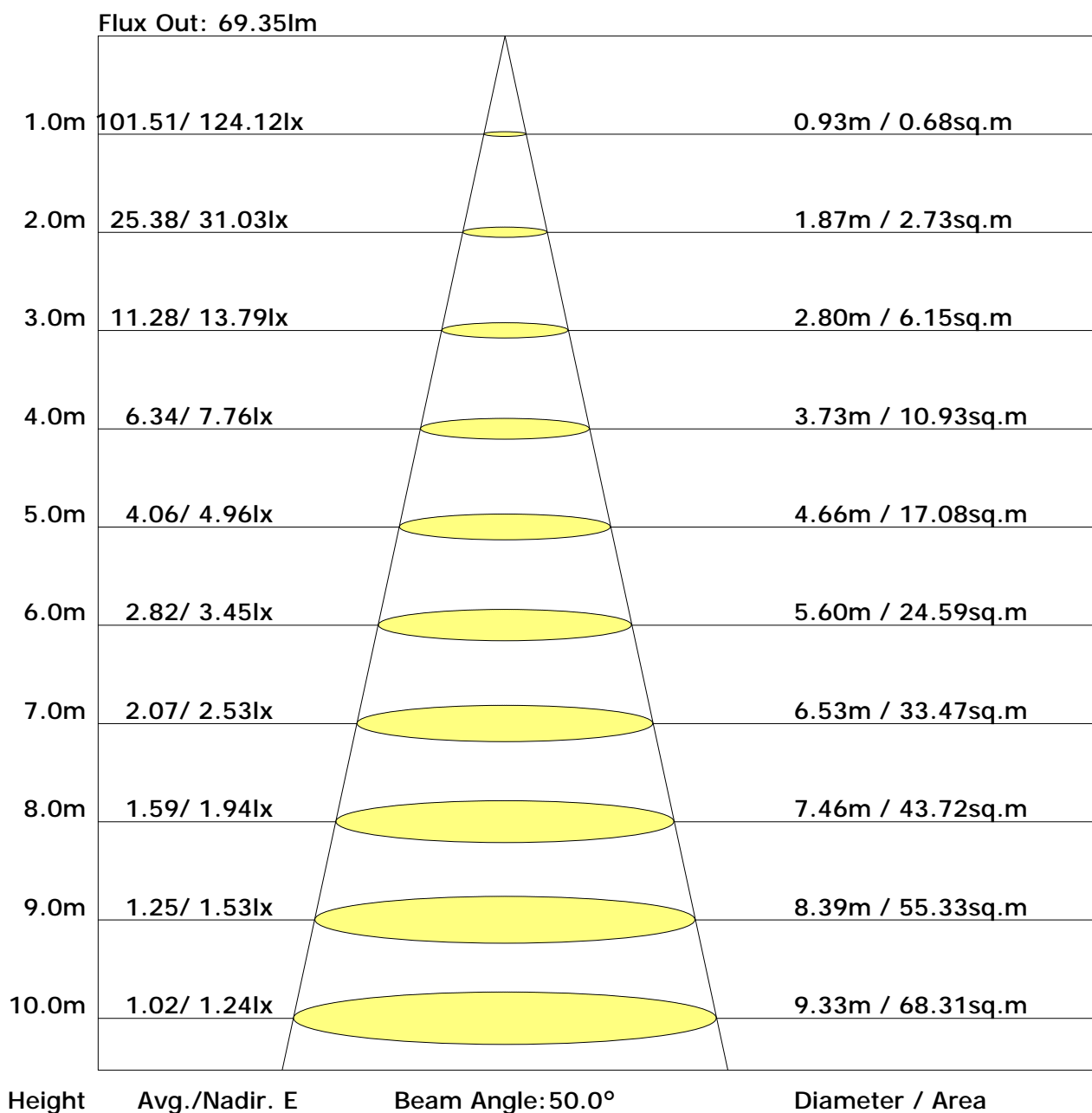
Test Device: GPM-1800B

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	24.9	26.6	25.3	26.9	27.2	25.5	27.1	25.8	27.4	27.7
3H	26.4	27.9	26.8	28.2	28.6	27.2	28.6	27.5	29.0	29.4
4H	26.8	28.2	27.2	28.6	29.0	27.8	29.2	28.2	29.5	29.9
6H	27.0	28.3	27.5	28.7	29.1	28.2	29.5	28.6	29.8	30.2
8H	27.1	28.3	27.5	28.7	29.1	28.3	29.5	28.7	29.9	30.3
12H	27.0	28.2	27.5	28.6	29.1	28.3	29.5	28.8	29.9	30.3
X=4H Y=2H	25.5	26.9	25.9	27.3	27.7	26.1	27.5	26.5	27.8	28.2
3H	27.2	28.4	27.6	28.8	29.2	28.0	29.2	28.4	29.6	30.0
4H	27.7	28.8	28.2	29.2	29.7	28.7	29.8	29.2	30.2	30.6
6H	28.0	29.0	28.5	29.4	29.9	29.2	30.2	29.7	30.6	31.1
8H	28.0	28.9	28.5	29.4	29.8	29.4	30.2	29.8	30.7	31.2
12H	28.0	28.8	28.5	29.3	29.8	29.4	30.2	29.9	30.7	31.2
X=8H Y=4H	28.0	28.9	28.5	29.3	29.8	29.0	29.9	29.5	30.3	30.8
6H	28.3	29.1	28.8	29.6	30.0	29.6	30.3	30.1	30.8	31.3
8H	28.4	29.0	28.9	29.5	30.0	29.8	30.5	30.3	31.0	31.5
12H	28.4	29.0	28.9	29.5	30.0	29.9	30.5	30.5	31.0	31.6
X=12H Y=4H	28.0	28.8	28.5	29.3	29.8	29.0	29.8	29.5	30.3	30.8
6H	28.4	29.0	28.9	29.5	30.0	29.7	30.3	30.2	30.8	31.4
8H	28.4	29.0	29.0	29.5	30.1	29.9	30.5	30.4	31.0	31.6

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: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	1.01	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	0.30	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	0.31	0.25	0.20
	0.20		0.72	0.62	0.54	0.48	0.40	0.34	0.30	0.23	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: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	0.21	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	0.18	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	0.19	0.20	0.20	0.20
	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	0.12	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>											