

Report No.: 01

Test Time: 2017/2/6 08:51

Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RB241.560PH

Luminous Length (mm): 500mm

Luminous Height (mm): 1mm

Current: 0.096 A

Power Factor: 1.000

Luminaire Description: RB241.560PH

Luminous Width (mm): 8mm

Voltage: 24.0 V

Power: 2.31 W

Photometric Results

CIE Class: Direct

Measurement Flux: 202.9 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H115.1

Vertical Diffuse Angle(50%): V115.4

Luminaire Efficacy Rating (LER): 88

Max. Intensity: 67.95 cd

Total Rated Lamp Lumens: 202.9 lm

Efficiency: 100%

Upward Ratio: 1%

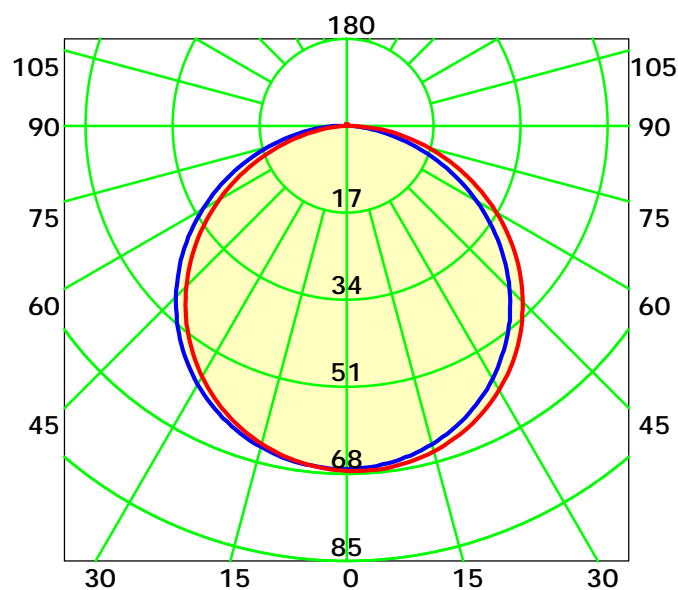
Central Intensity: 67.55 cd

Pos of Max. Intensity: H90 V2

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 115.3° 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

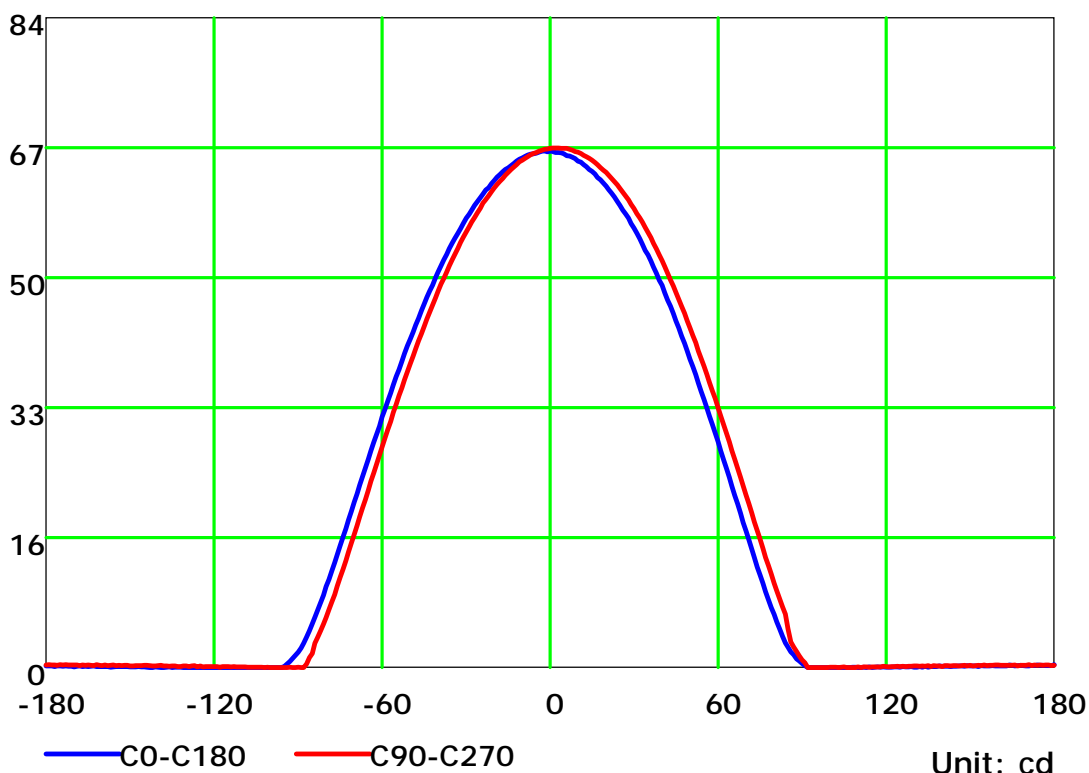
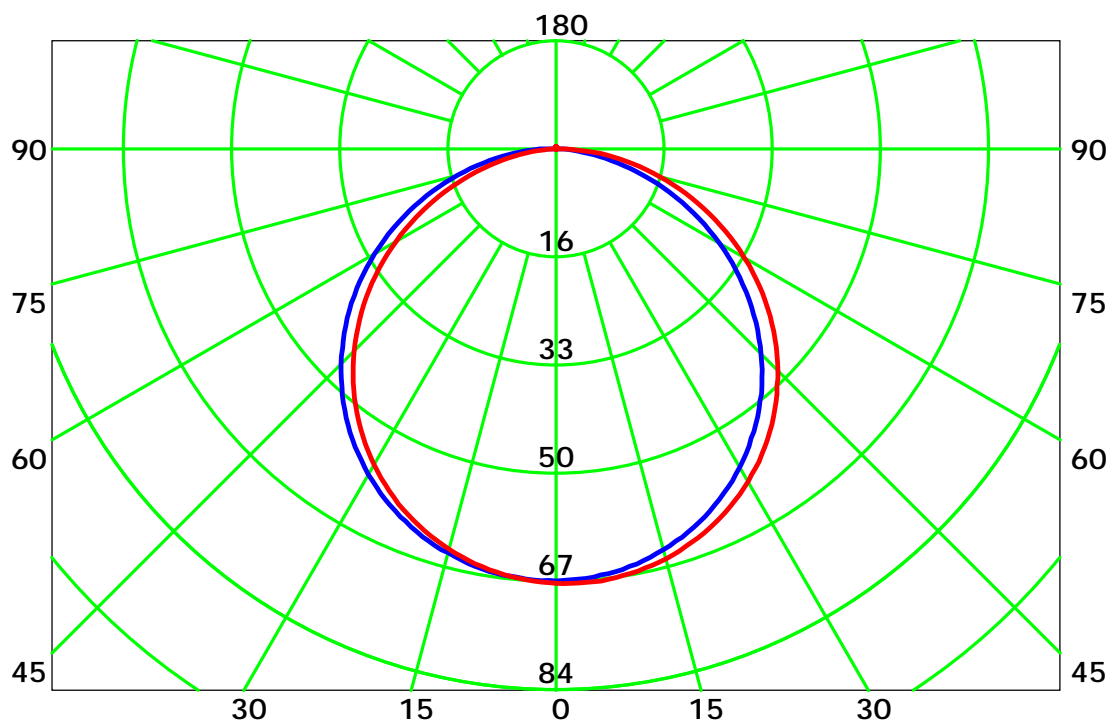
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

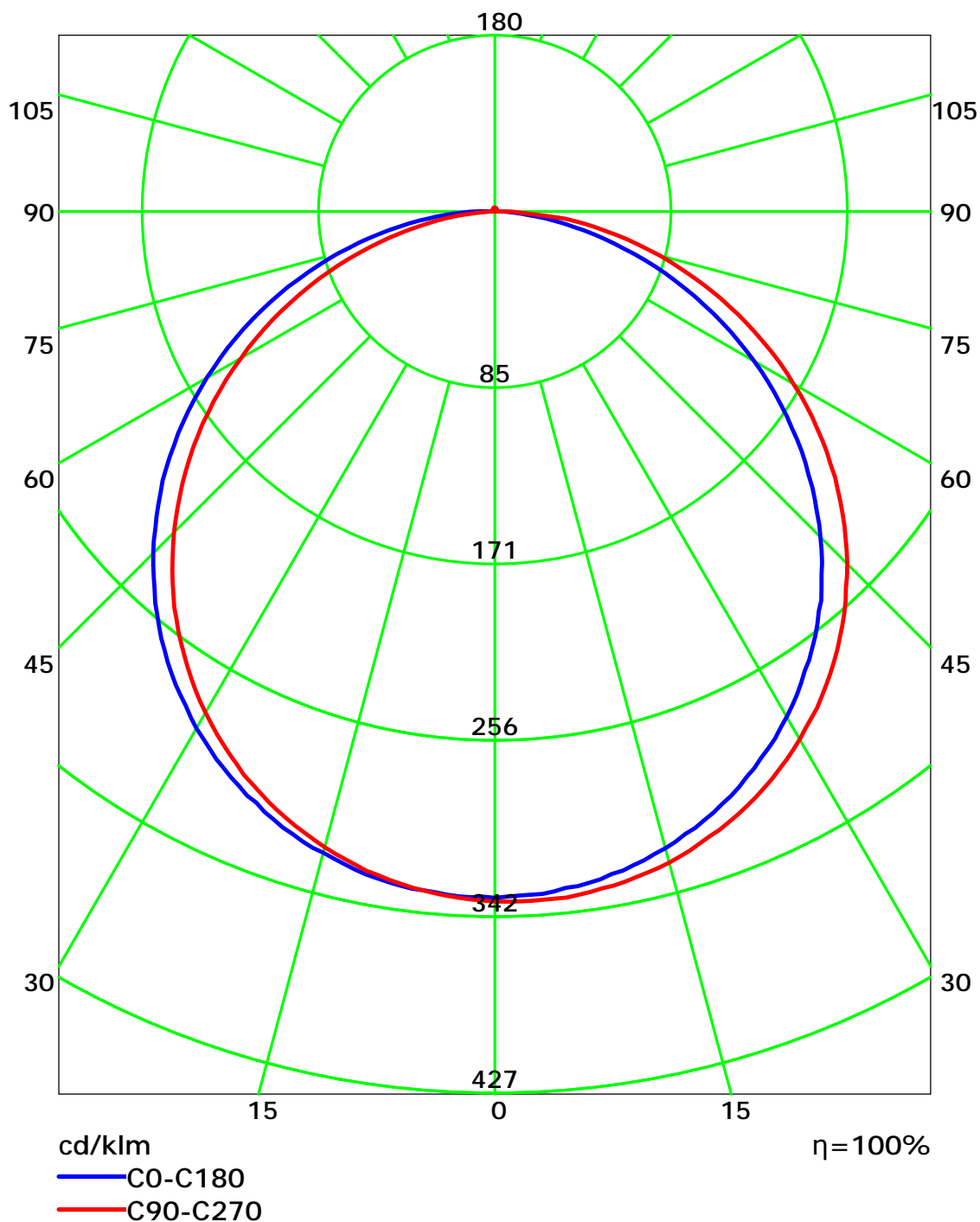
Luminous Intensity Distribution Curve



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:

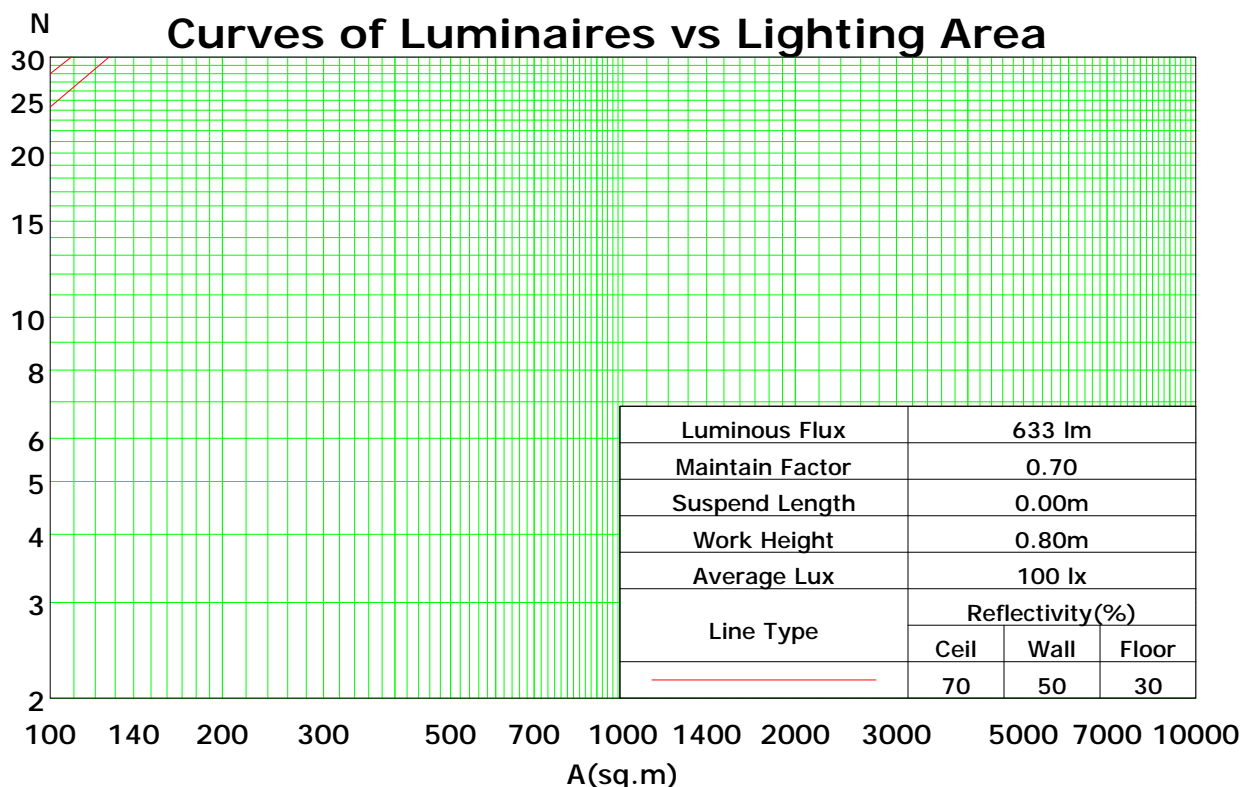
Coefficients Of Utilization - Zonal Cavity Method

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	105	101	97	93	97	93	90	93	90	87	89	87	85	82
2	98	90	83	77	95	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	59	57
4	82	69	61	54	79	68	60	53	65	58	52	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	39	51	44	39	49	43	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	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

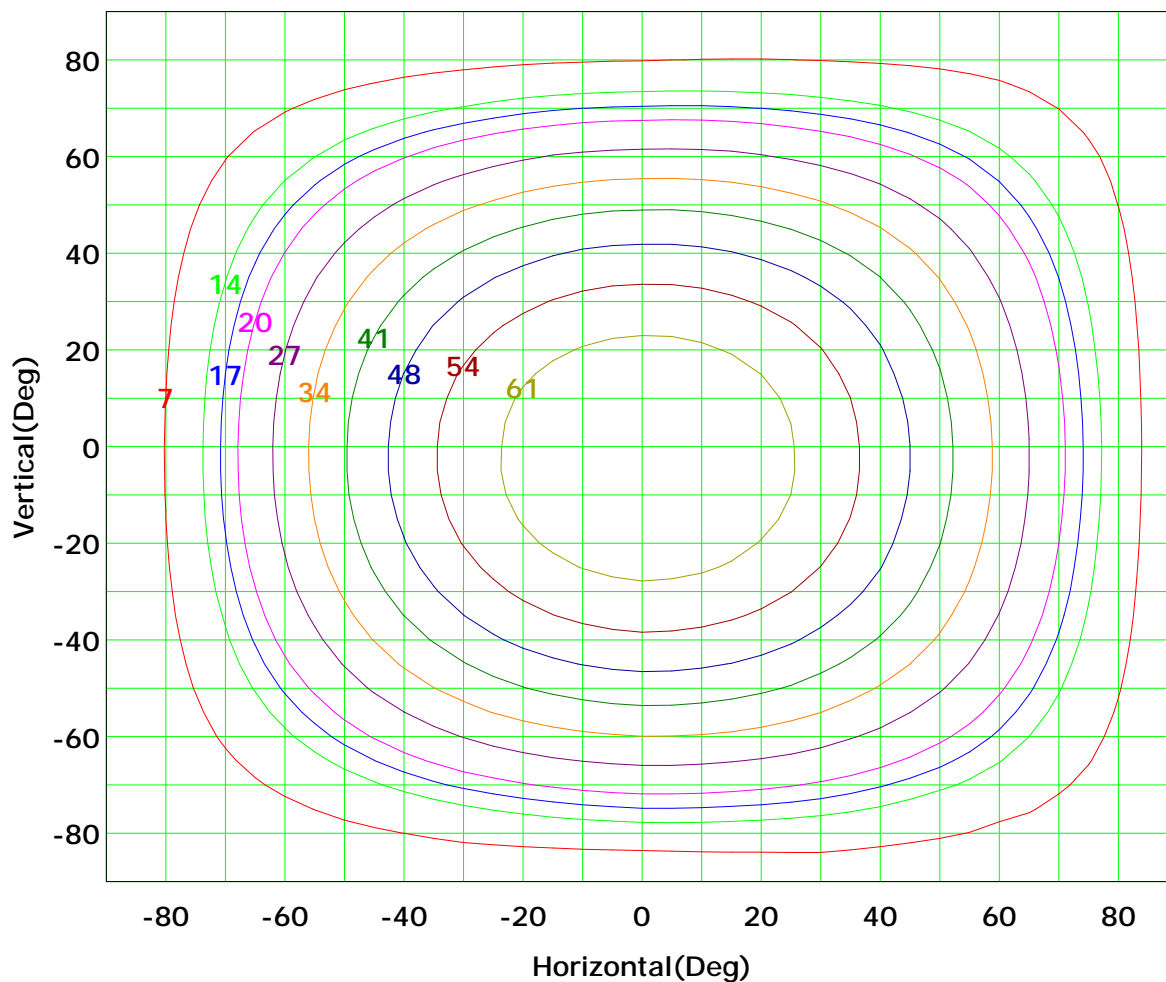
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Isocandela (rectangle)



Imax (100%): 68 cd

(10%):	7 cd	(20%):	14 cd
(25%):	17 cd	(30%):	20 cd
(40%):	27 cd	(50%):	34 cd
(60%):	41 cd	(70%):	48 cd
(80%):	54 cd	(90%):	61 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

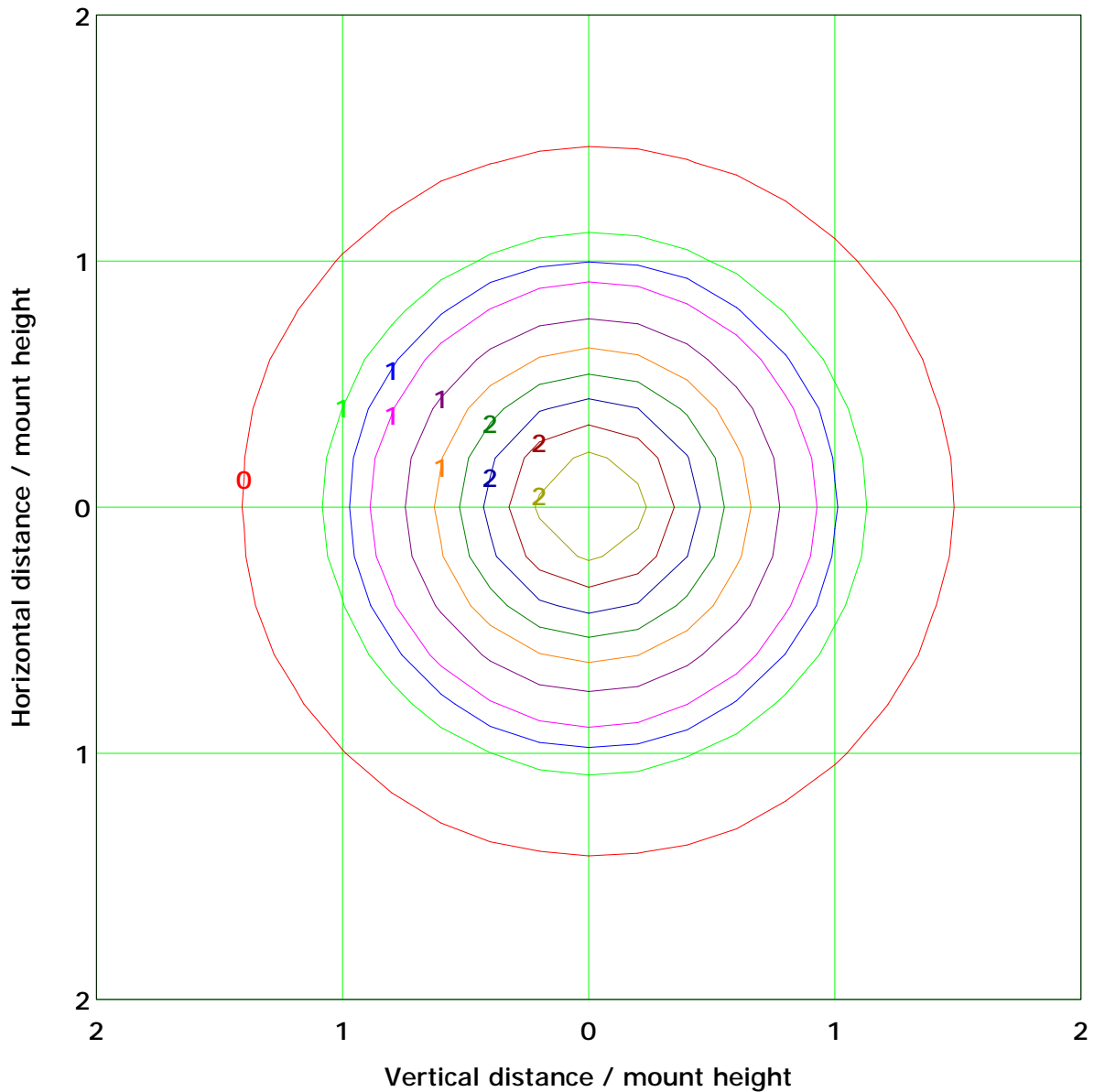
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

IsoLux Plot



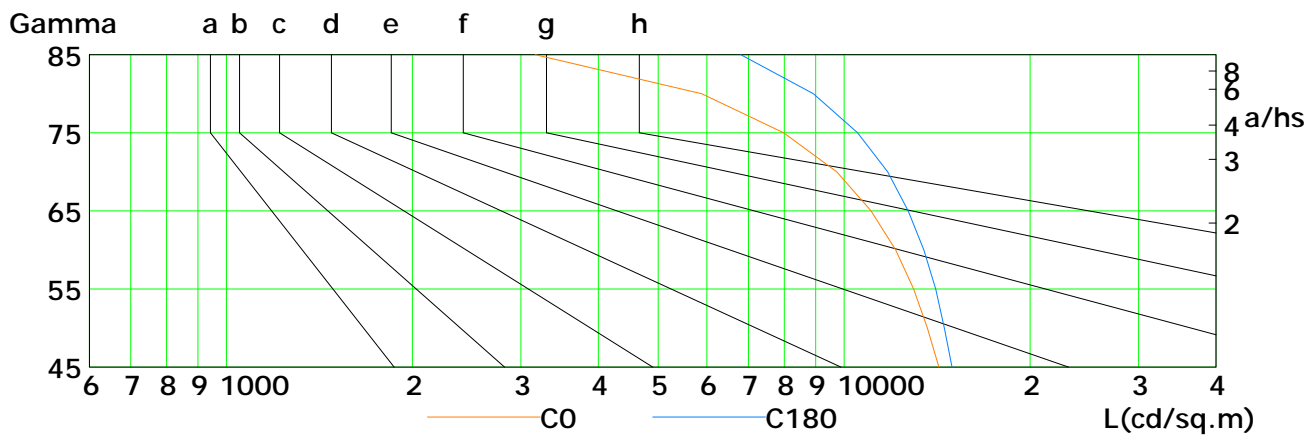
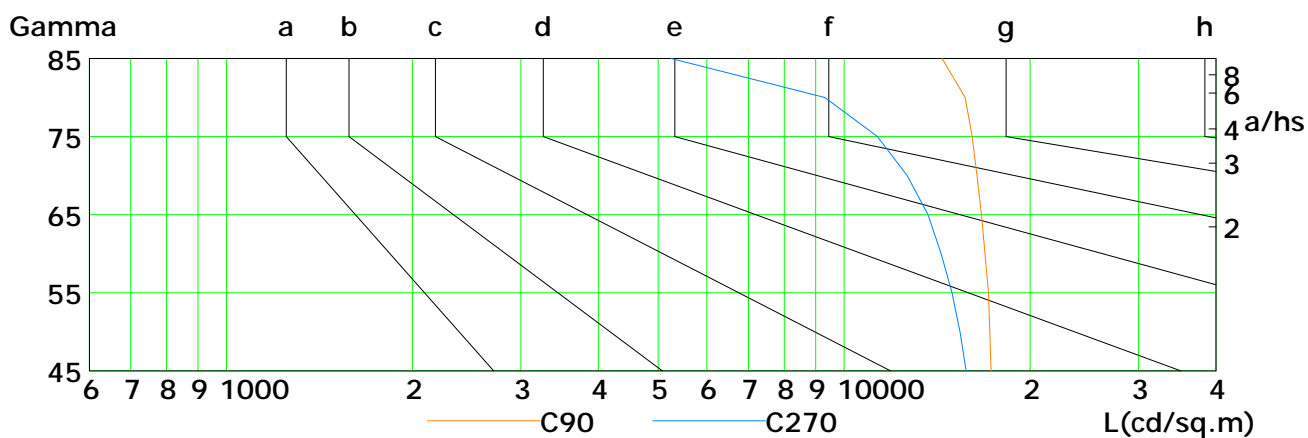
C Plane (°):0.0-360.0: 30.0
Test Lab: acolyteled
Test Type: TYPE C
Temperature: 25°C
Operator: roy

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	14243	13648	12967	12125	11056	9739	7990	5880	3165
C90	17307	17227	17128	16911	16687	16407	16127	15716	14414
C180	14953	14539	14080	13469	12707	11774	10525	8922	6803
C270	15758	15408	14951	14365	13671	12664	11323	9310	5244

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

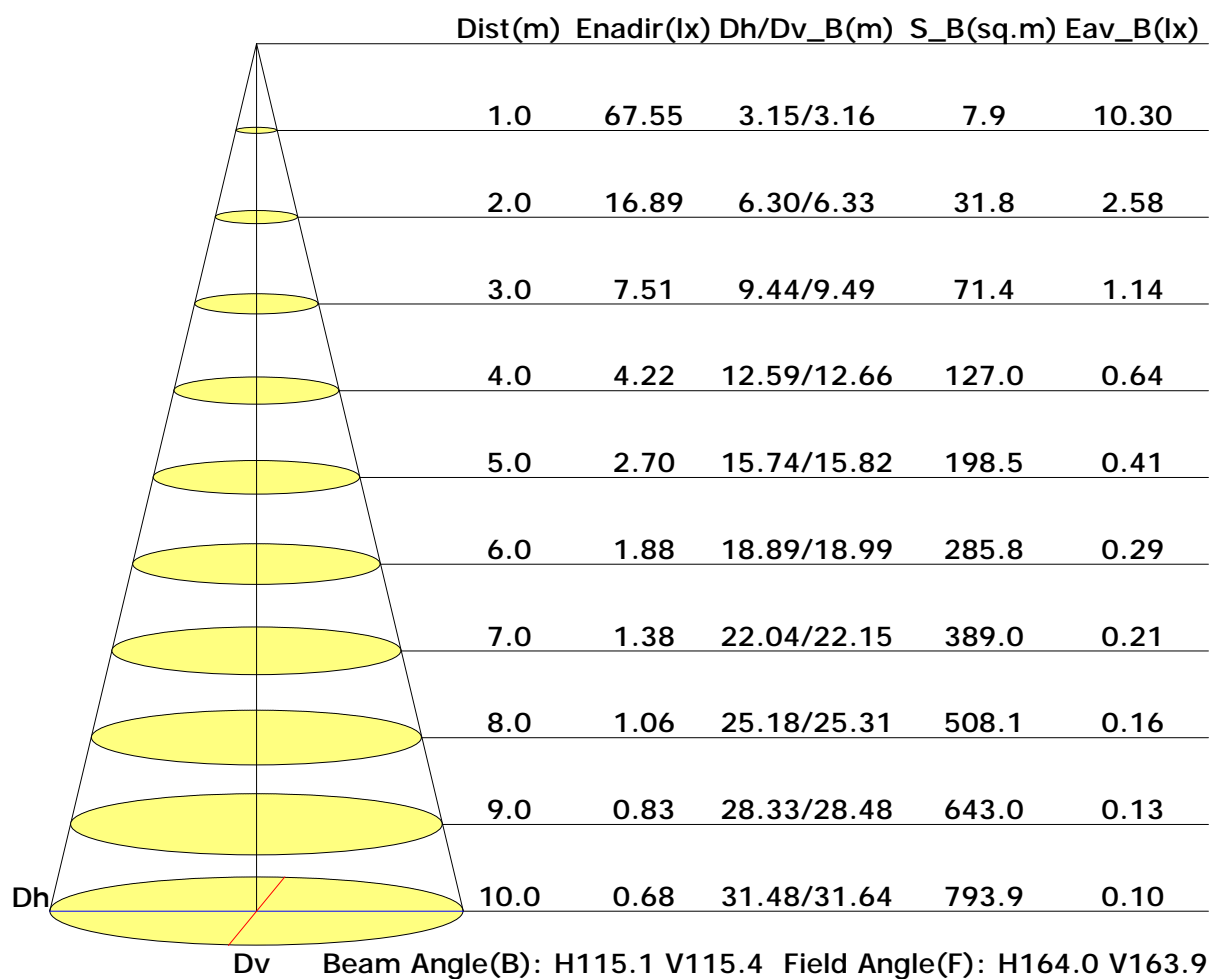
Test Device: GPM-1800B

Distance: 9.028 m

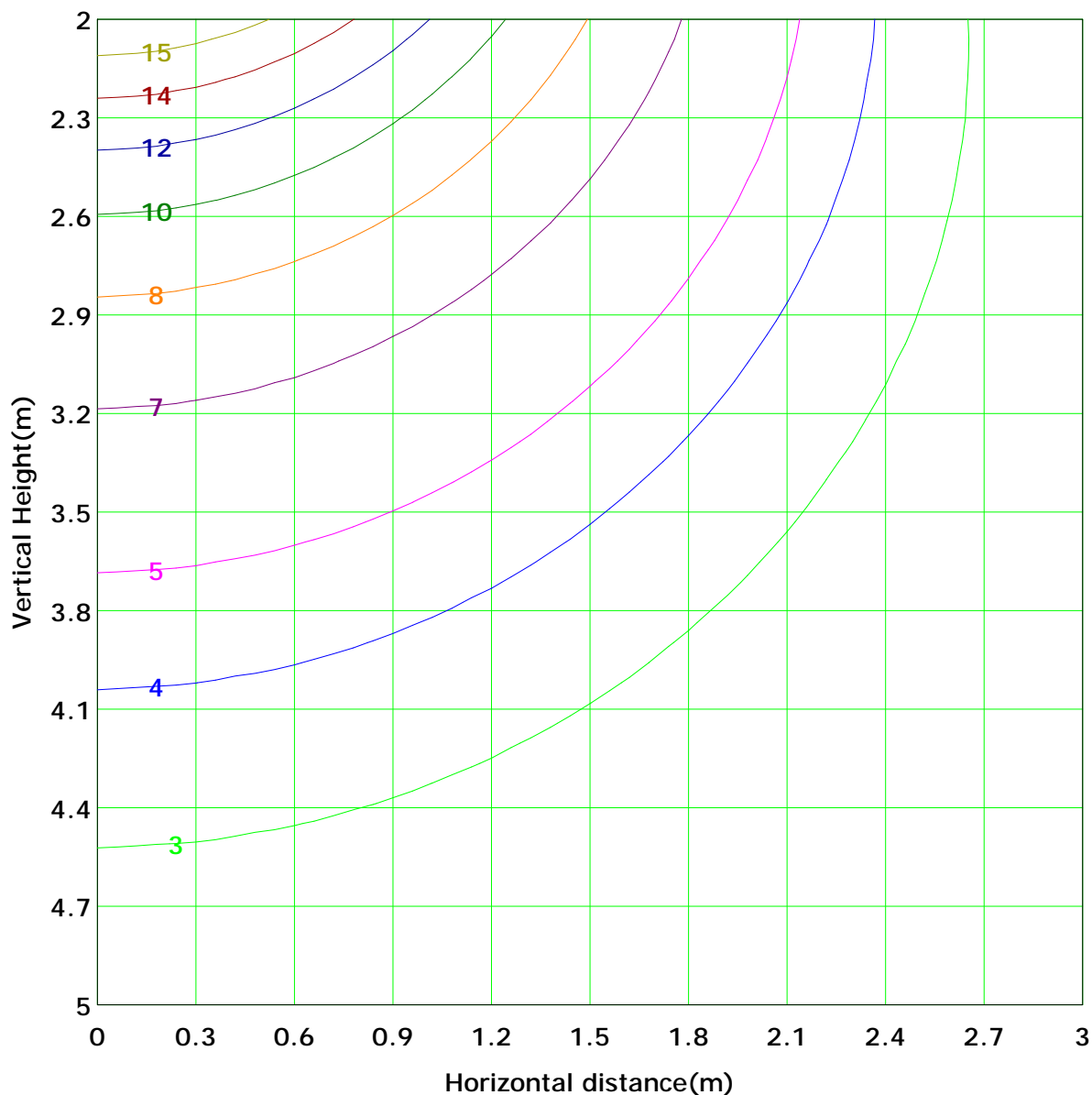
Humidity: 60%

Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 16.9 lx
(10%): 1.7 lx	(20%): 3.4 lx	
(25%): 4.2 lx	(30%): 5.1 lx	
(40%): 6.8 lx	(50%): 8.4 lx	
(60%): 10.1 lx	(70%): 11.8 lx	
(80%): 13.5 lx	(90%): 15.2 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																		Flux(T)		Flux(E)	
		-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80				
Horizontal plane	-90	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1		
	-80	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.3	0.4	0.7	1.0	1.4	1.7	1.9	2.0	2.0	2.0	2.0	21.5	22.8		
	-70	0.0	0.1	0.1	0.2	0.4	0.5	0.6	0.6	0.7	1.0	1.4	1.7	1.9	2.0	2.0	2.0	2.0	2.0	22.7	22.5		
	-60	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.3	0.9	1.1	1.4	1.6	1.8	1.9	2.0	2.0	2.0	2.0	21.1	20.9		
	-50	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.1	1.1	1.3	1.6	1.8	2.0	2.0	2.0	2.0	2.0	2.0	18.3	18.2		
	-40	0.0	0.1	0.2	0.4	0.7	0.9	1.1	1.3	1.3	1.5	1.6	1.7	1.8	1.9	2.0	2.0	2.0	2.0	14.6	14.5		
	-30	0.0	0.1	0.3	0.5	0.8	1.1	1.3	1.5	1.3	1.5	1.6	1.7	1.8	1.9	2.0	2.0	2.0	2.0	10.5	10.4		
	-20	0.0	0.1	0.3	0.6	0.9	1.2	1.5	1.7	1.5	1.7	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0	6.6	6.4		
	-10	0.0	0.1	0.3	0.6	1.0	1.3	1.6	1.8	1.6	1.8	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.3	3.1		
	0	0.0	0.1	0.4	0.7	1.0	1.4	1.7	1.9	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.1	0.8		
	10	0.0	0.1	0.4	0.7	1.0	1.4	1.7	1.9	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.1	0.0		
	20	0.0	0.1	0.3	0.6	1.0	1.4	1.7	1.9	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0		
	30	0.0	0.1	0.3	0.6	0.9	1.2	1.4	1.6	1.4	1.7	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0		
	40	0.0	0.1	0.3	0.6	0.9	1.2	1.4	1.6	1.4	1.7	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0		
	50	0.0	0.1	0.3	0.5	0.7	1.0	1.2	1.4	1.2	1.5	1.7	1.9	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0		
	60	0.0	0.1	0.2	0.4	0.6	0.8	1.0	1.1	0.9	1.1	1.2	1.4	1.5	1.6	1.7	1.8	1.9	2.0	0.0	0.0		
	70	0.0	0.1	0.1	0.3	0.4	0.6	0.7	0.8	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	0.0	0.0		
	80	0.0	0.0	0.1	0.2	0.3	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0		
	90	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0		
	Flux(T)	0.2	1.5	4.0	7.5	11.5	15.5	19.0	21.5	22.8	22.7	21.1	18.3	14.6	10.5	6.6	3.3	1.1	0.1	202			
	Flux(E)	0.1	1.3	3.8	7.3	11.3	15.3	18.8	21.4	22.6	22.5	20.9	18.2	14.5	10.4	6.4	3.1	0.8	0.0		199		

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

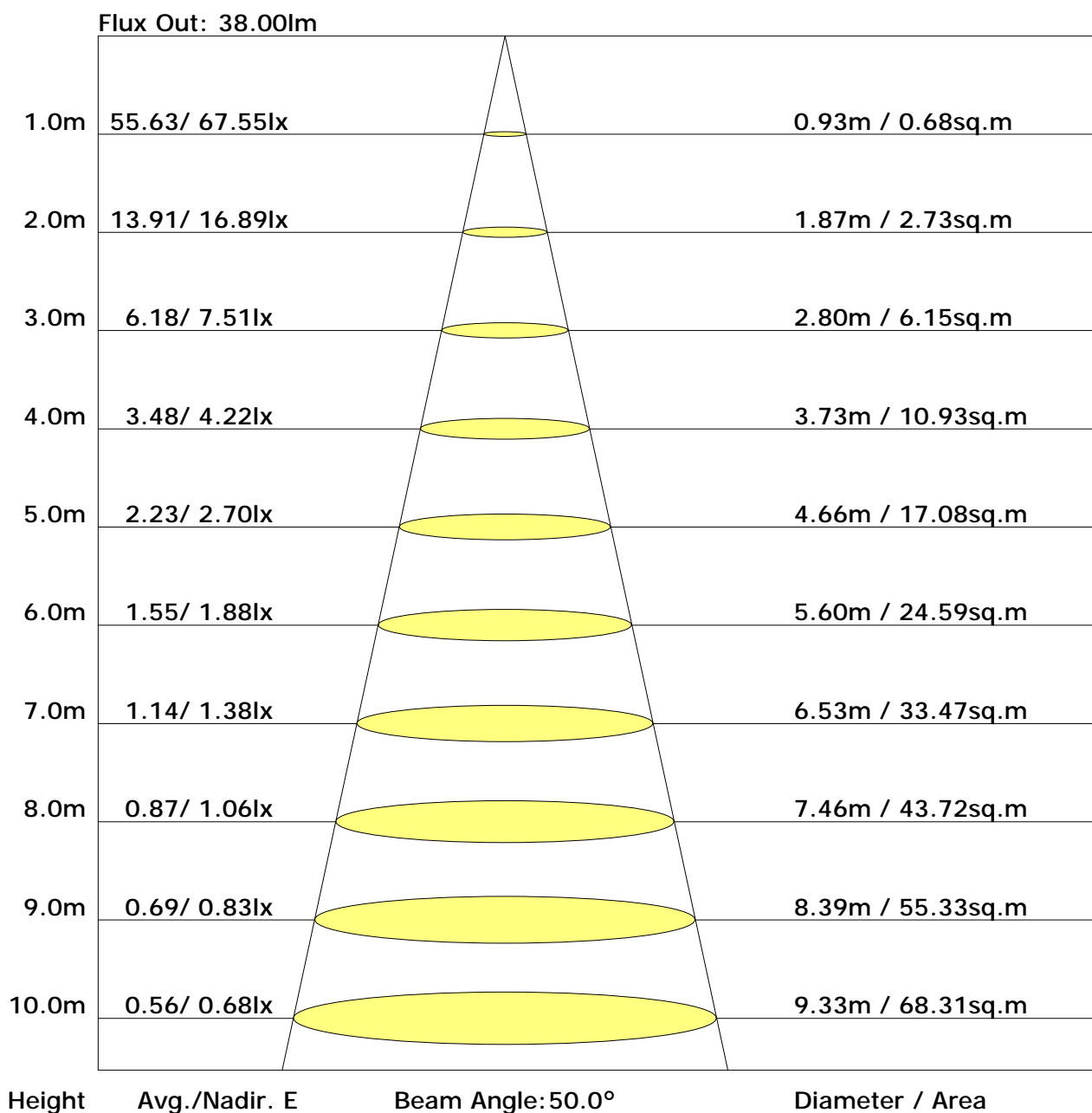
Test Device: GPM-1800B

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	26.8	28.4	27.2	28.8	29.1	27.2	28.8	27.6	29.2	29.5
3H	28.5	30.0	28.9	30.3	30.7	29.0	30.5	29.4	30.9	31.2
4H	29.1	30.5	29.5	30.9	31.3	29.7	31.1	30.1	31.5	31.9
6H	29.6	30.9	30.0	31.2	31.6	30.3	31.6	30.7	31.9	32.4
8H	29.7	30.9	30.1	31.3	31.7	30.4	31.7	30.9	32.1	32.5
12H	29.7	30.9	30.2	31.3	31.8	30.6	31.8	31.0	32.2	32.6
X=4H Y=2H	27.4	28.8	27.8	29.1	29.5	27.8	29.2	28.2	29.6	30.0
3H	29.3	30.5	29.7	30.9	31.3	29.9	31.1	30.3	31.5	31.9
4H	30.0	31.1	30.5	31.5	32.0	30.7	31.8	31.2	32.2	32.7
6H	30.6	31.5	31.0	31.9	32.4	31.4	32.3	31.9	32.8	33.3
8H	30.7	31.6	31.2	32.0	32.5	31.6	32.5	32.1	33.0	33.4
12H	30.8	31.6	31.3	32.1	32.6	31.8	32.6	32.3	33.1	33.5
X=8H Y=4H	30.3	31.2	30.8	31.6	32.1	31.1	31.9	31.5	32.4	32.9
6H	30.9	31.6	31.4	32.1	32.6	31.8	32.6	32.4	33.1	33.6
8H	31.1	31.8	31.6	32.3	32.8	32.2	32.8	32.7	33.3	33.8
12H	31.3	31.8	31.8	32.3	32.9	32.4	33.0	32.9	33.5	34.1
X=12H Y=4H	30.3	31.1	30.8	31.6	32.1	31.1	31.9	31.6	32.4	32.9
6H	31.0	31.6	31.5	32.1	32.6	31.9	32.6	32.5	33.1	33.6
8H	31.2	31.8	31.7	32.3	32.8	32.3	32.9	32.8	33.4	33.9

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		0.46	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
<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	0.72	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	0.55	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	0.58	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: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	0.18	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	0.16	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
Rating: 2W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											