

Report No.: 01

Test Time: 2017/2/5 16:21

Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RBMT243.060PH

Luminous Length (mm): 500mm

Luminous Height (mm): 1mm

Current: 0.203 A

Power Factor: 1.000

Luminaire Description: RBMT243.060PH

Luminous Width (mm): 12mm

Voltage: 24.0 V

Power: 4.88 W

Photometric Results

CIE Class: Direct

Measurement Flux: 407.7 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H117.5

Vertical Diffuse Angle(50%): V117.3

Luminaire Efficacy Rating (LER): 84

Max. Intensity: 134.17 cd

Total Rated Lamp Lumens: 407.7 lm

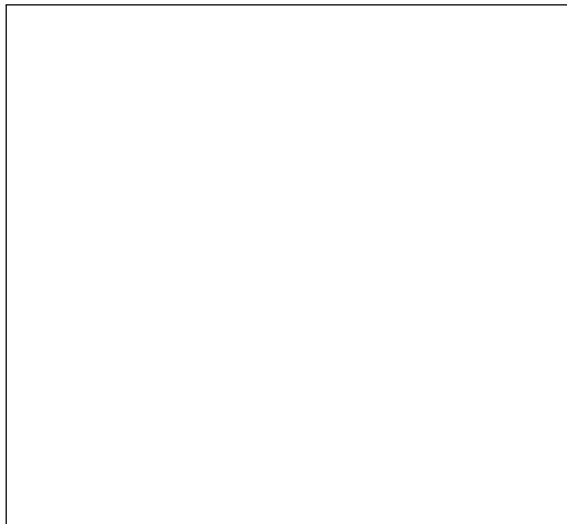
Efficiency: 100%

Upward Ratio: 1%

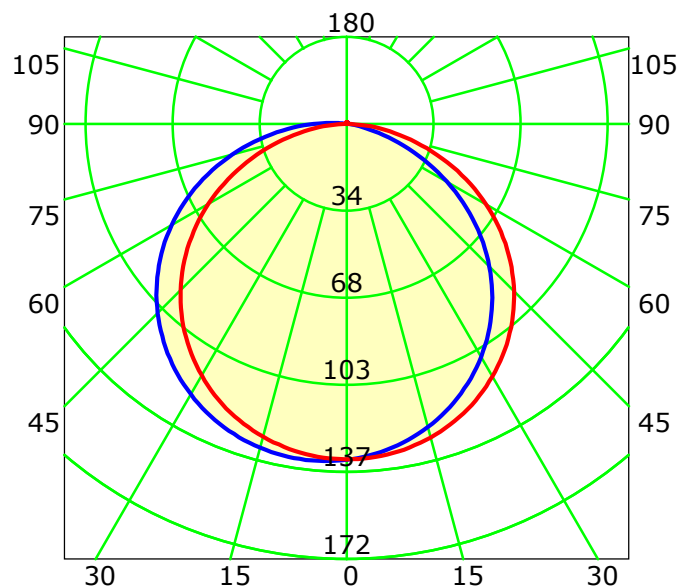
Central Intensity: 133.13 cd

Pos of Max. Intensity: H180 V7

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 117.4° 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

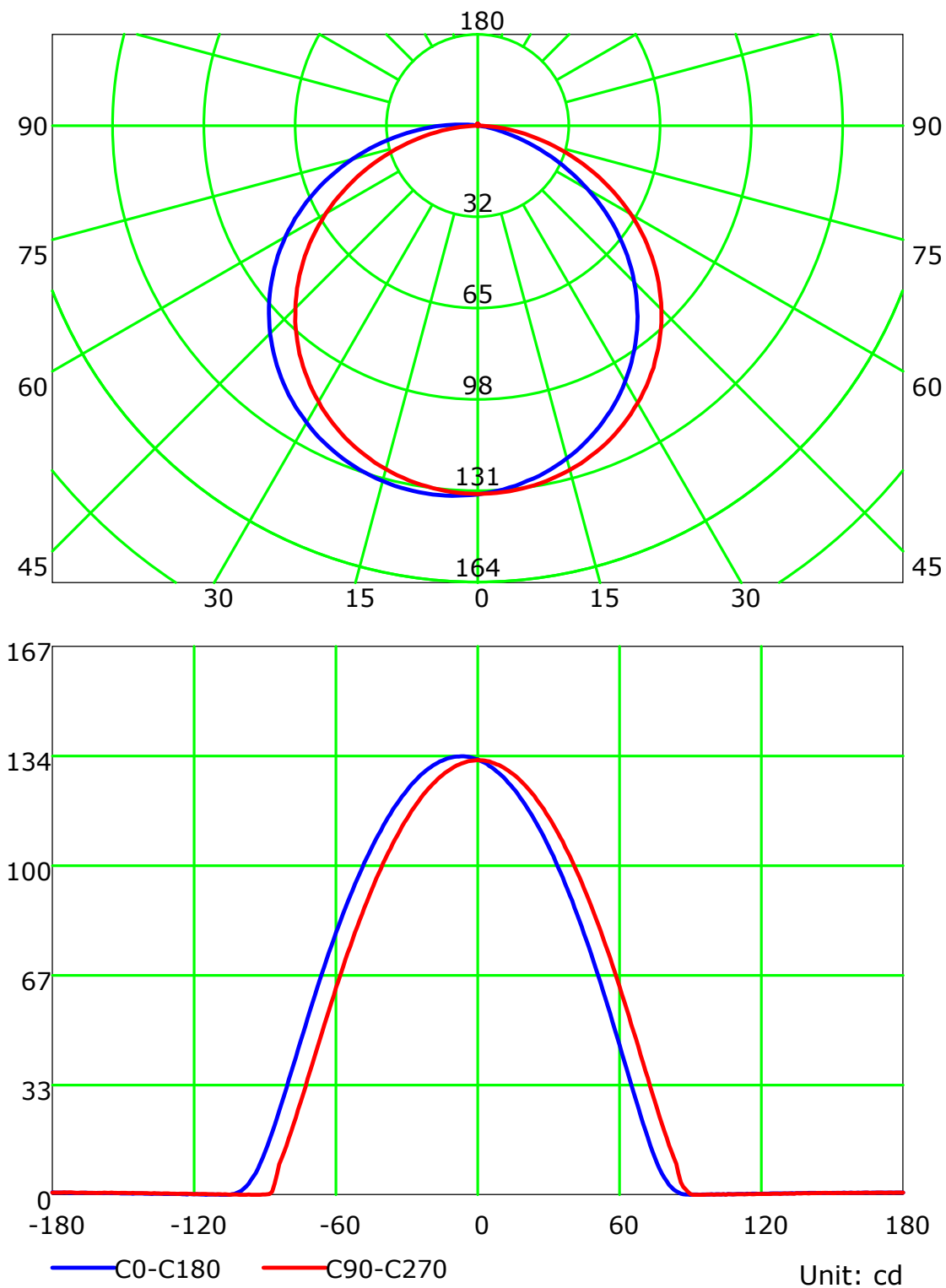
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

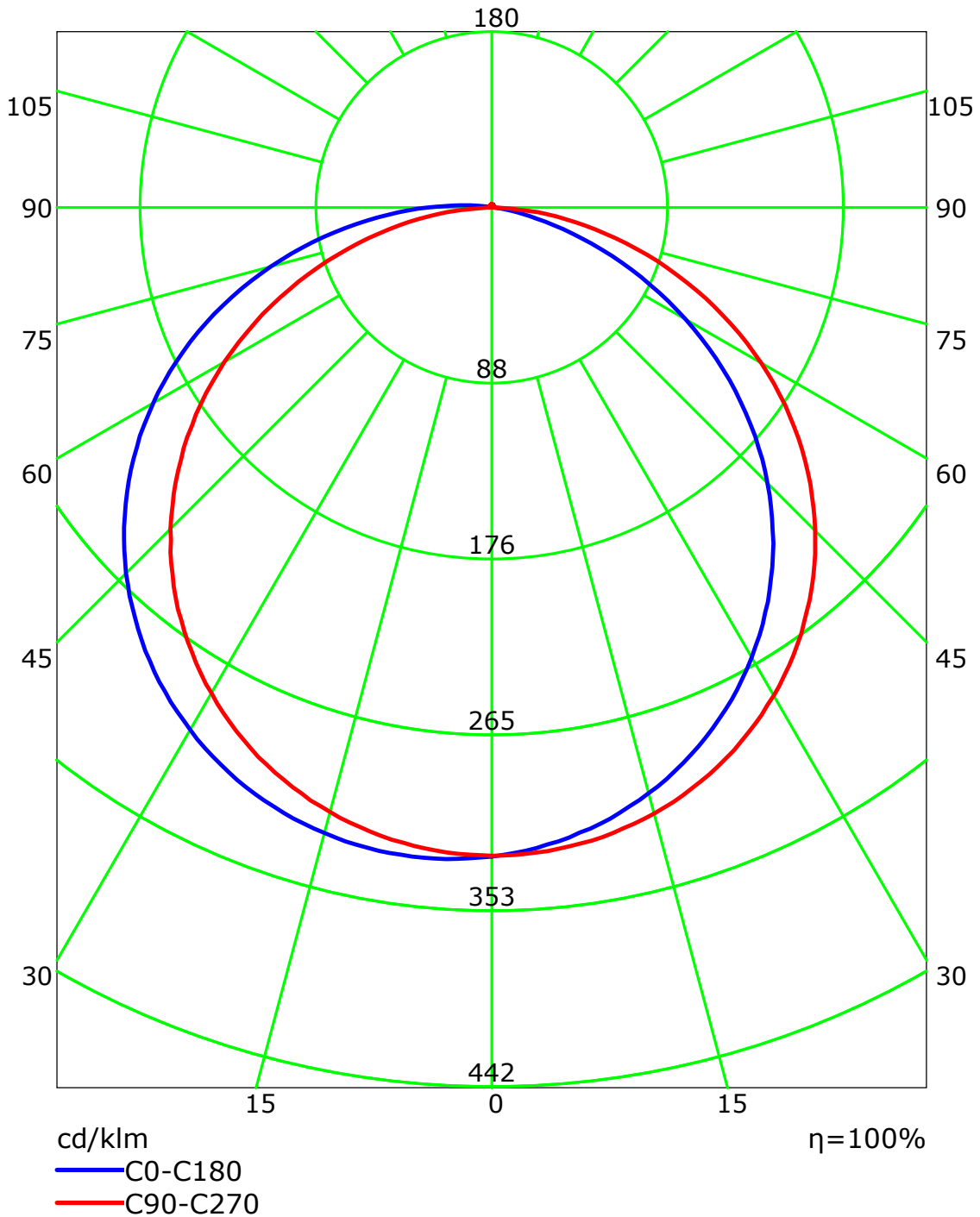
Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 30.0
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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:

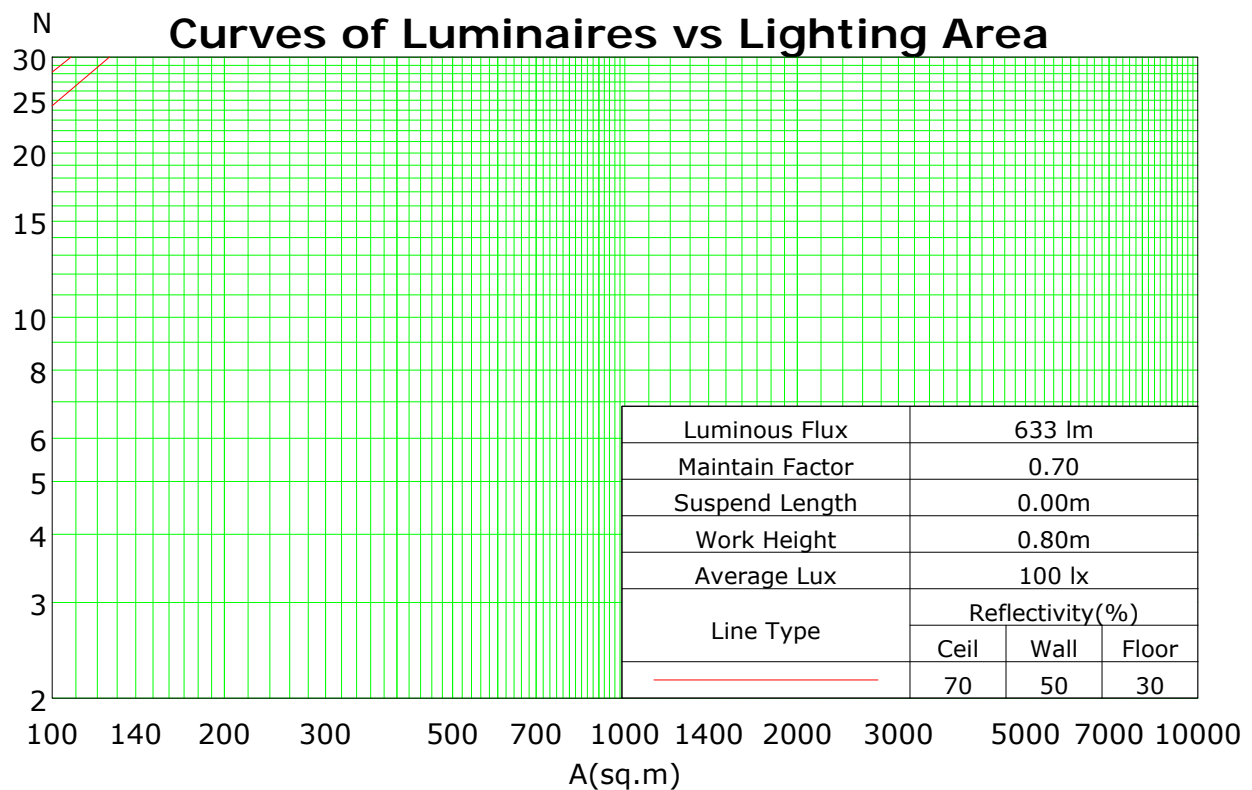
Coefficients Of Utilization - Zonal Cavity Method

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	98	94	105	101	96	93	96	93	90	92	89	87	88	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	73	70	68
3	89	78	70	63	86	76	69	62	73	67	61	70	65	60	68	63	59	57
4	81	69	60	53	79	68	59	53	65	58	52	63	56	51	60	55	50	48
5	75	62	52	46	73	60	52	45	58	51	45	56	49	44	54	48	44	41
6	69	55	46	40	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	38	34	32
8	59	46	37	31	58	45	37	31	43	36	31	42	35	30	41	35	30	28
9	55	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

Spacing Criteria (0-180): 1.29

Spacing Criteria (90-270): 1.29

Spacing Criteria (Diagonal): 1.41



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

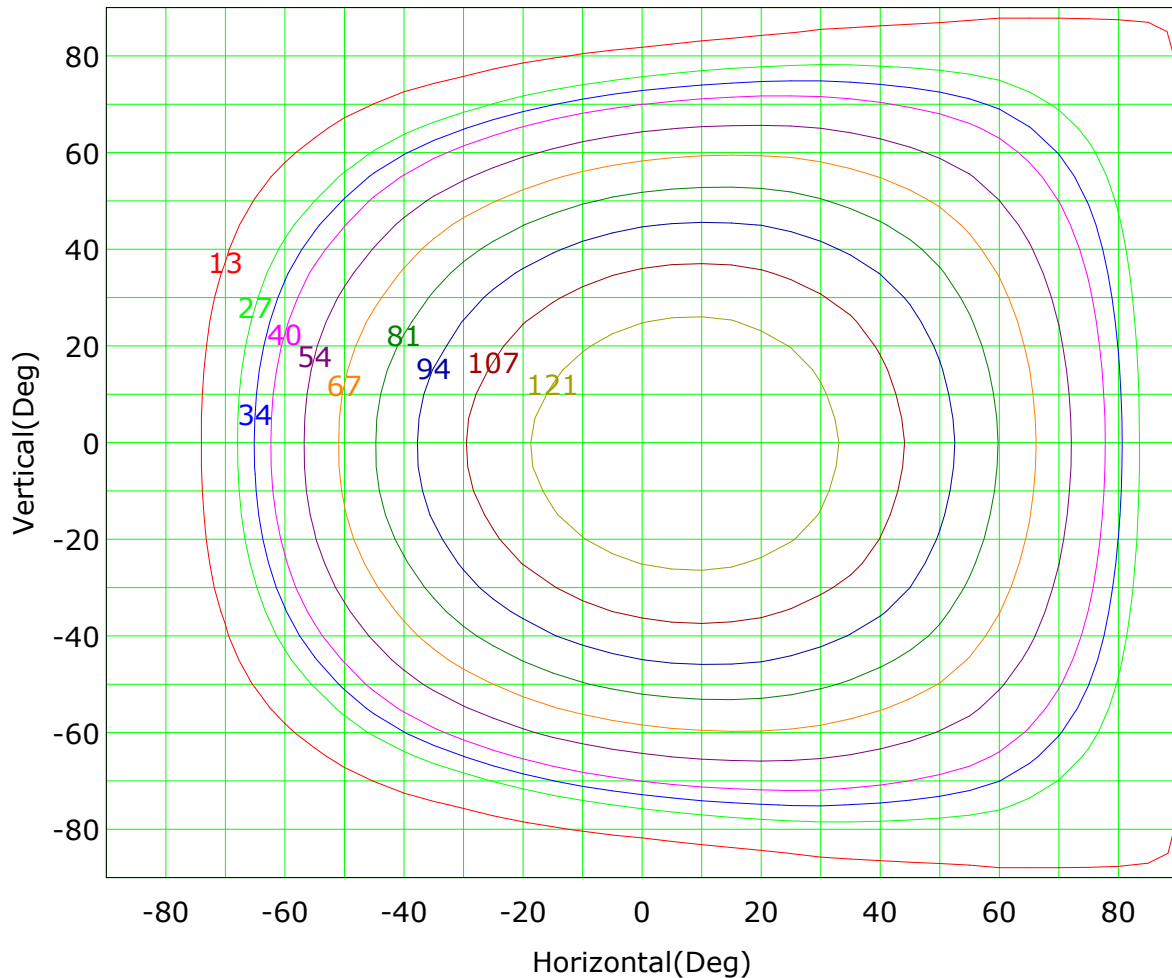
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Isocandela (rectangle)



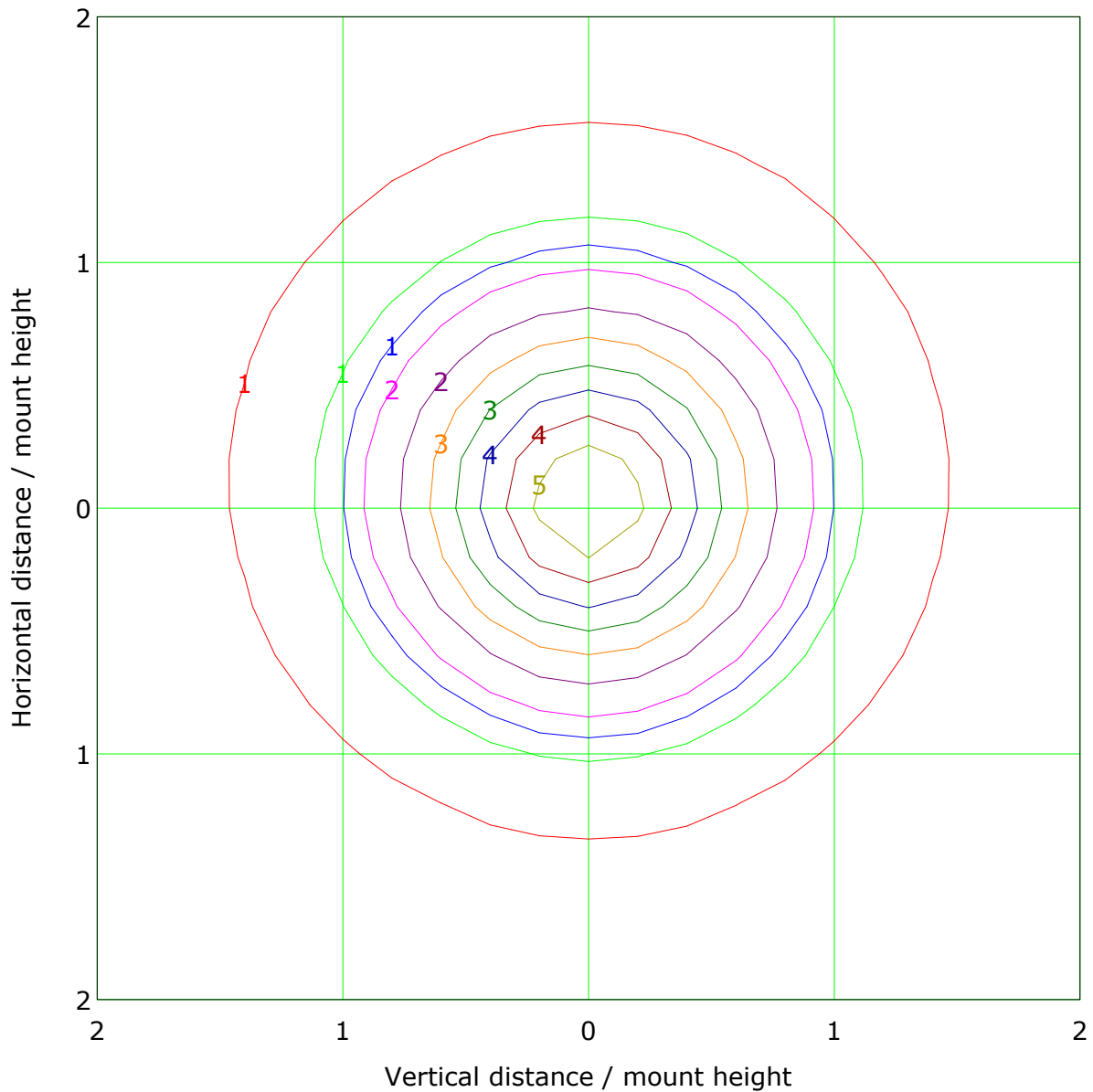
I_{max} (100%): 134 cd

(10%): 13 cd	(20%): 27 cd
(25%): 34 cd	(30%): 40 cd
(40%): 54 cd	(50%): 67 cd
(60%): 81 cd	(70%): 94 cd
(80%): 107 cd	(90%): 121 cd

C Plane (°):0.0-360.0: 30.0
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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%): 5.3 lx

(10%): 0.5 lx	(20%): 1.1 lx
(25%): 1.3 lx	(30%): 1.6 lx
(40%): 2.1 lx	(50%): 2.7 lx
(60%): 3.2 lx	(70%): 3.7 lx
(80%): 4.3 lx	(90%): 4.8 lx

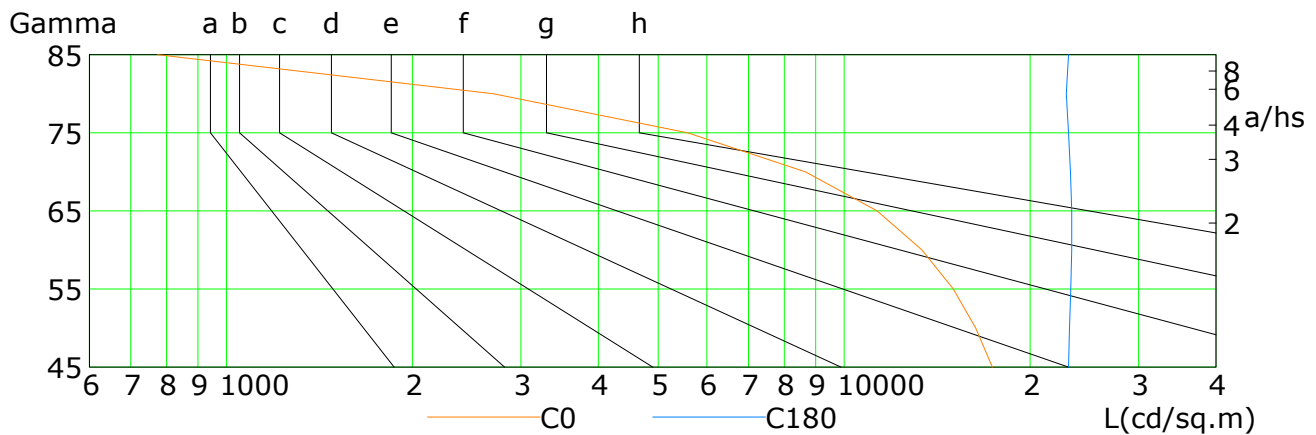
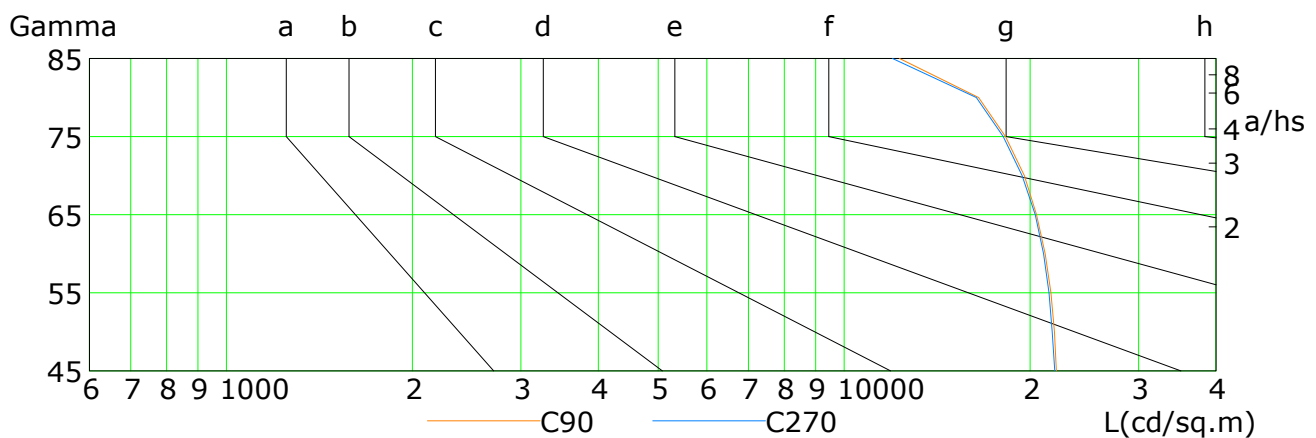
C Plane (°):0.0-360.0: 30.0
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Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:

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	17390	16336	15027	13370	11315	8660	5580	2705	774
C90	22069	21902	21630	21177	20502	19594	18255	16513	12302
C180	23095	23183	23290	23358	23360	23268	23086	22890	23084
C270	21926	21736	21479	21027	20408	19434	18108	16371	11984

C Plane (°):0.0-360.0: 30.0

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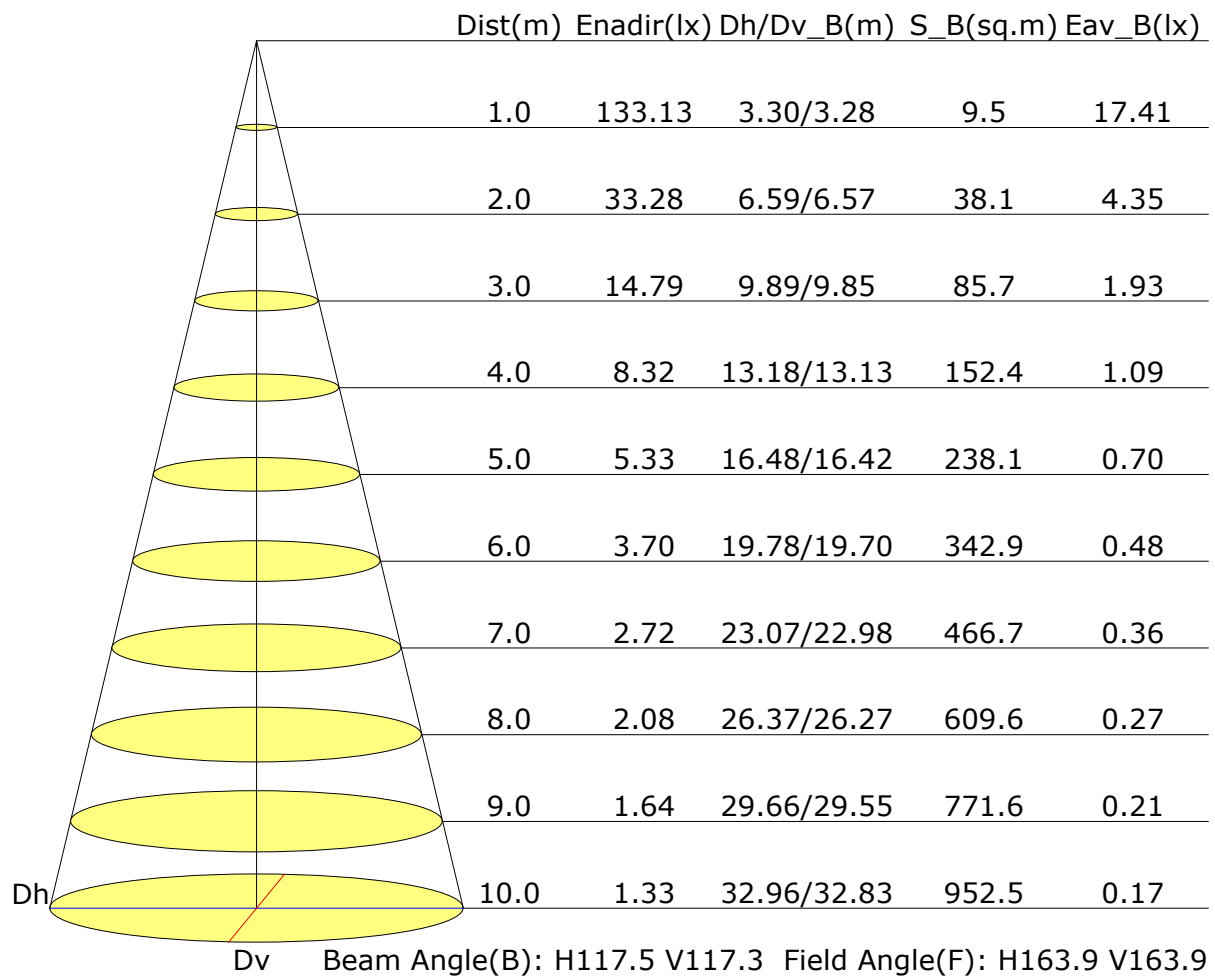
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

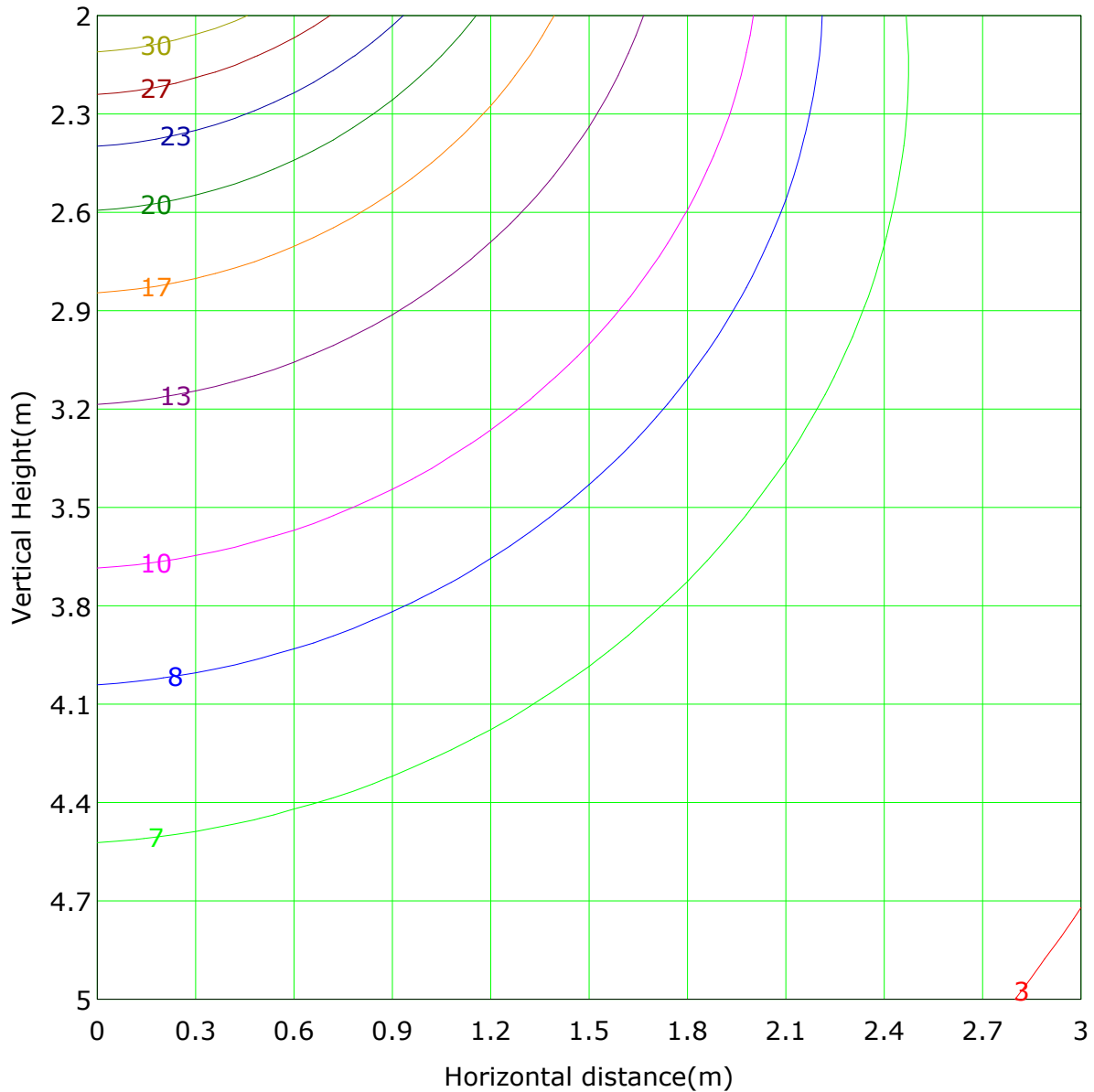
Illuminance at a Distance



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: 33.3 lx
(10%): 3.3 lx	(20%): 6.7 lx	
(25%): 8.3 lx	(30%): 10.0 lx	
(40%): 13.3 lx	(50%): 16.6 lx	
(60%): 20.0 lx	(70%): 23.3 lx	
(80%): 26.6 lx	(90%): 30.0 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:

Area Flux Table

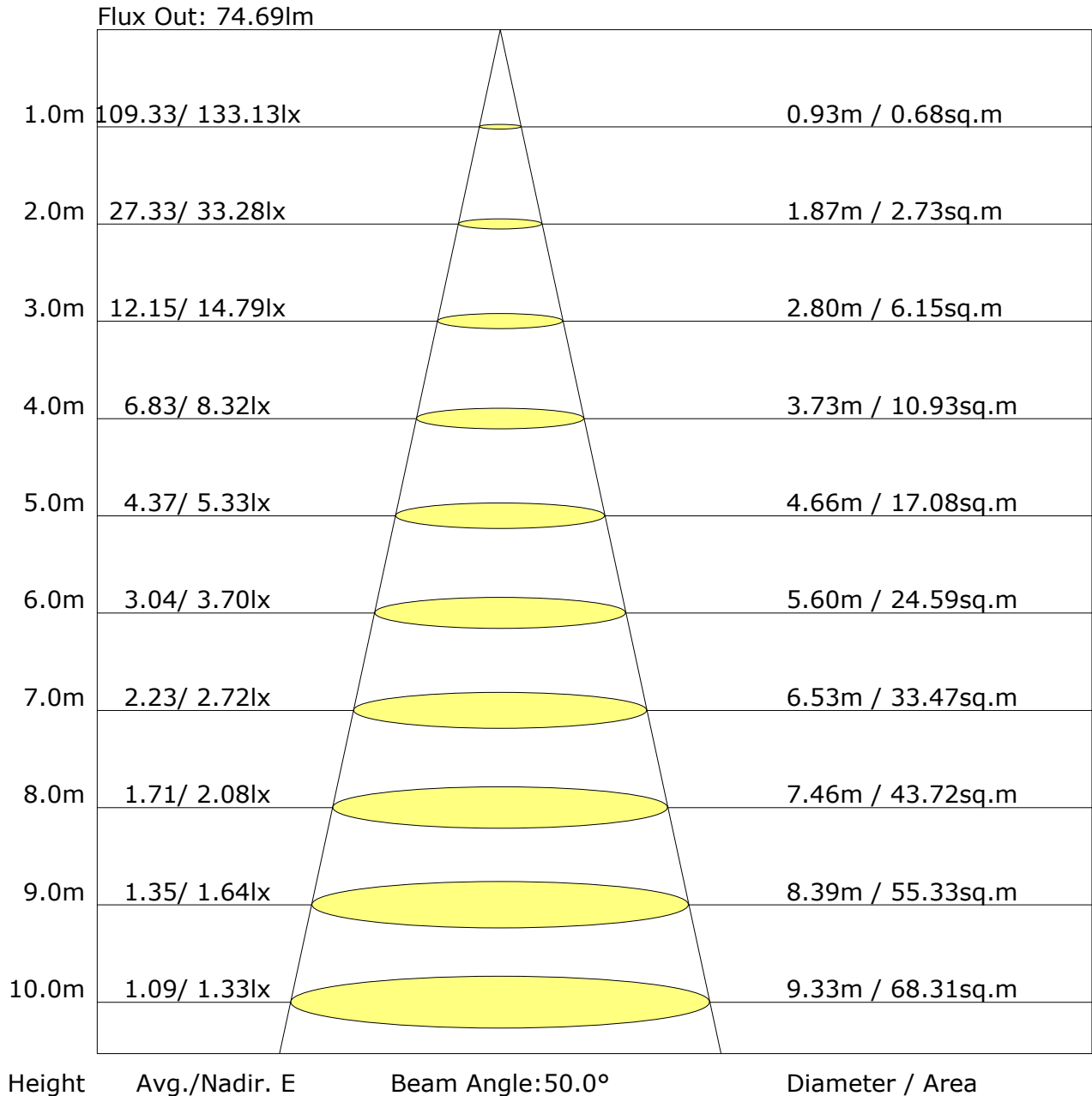
Unit: lm

		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	0.2	0.3	0.3	0.4	0.4	0.3	0.3	0.2	0.4	0.4	0.3	0.4	0.5	0.6	0.7	0.8	1.0	4.9	1.0
	-80	0.0	0.2	0.3	0.5	0.7	0.8	0.9	0.8	0.9	0.7	0.9	0.9	0.8	1.0	1.2	1.4	1.6	1.8	2.1	4.8	1.0
	-70	0.0	0.2	0.4	0.7	1.0	1.3	1.5	1.6	1.7	1.4	1.5	1.6	1.7	1.9	2.1	2.3	2.5	2.7	3.0	4.9	1.0
	-60	0.1	0.2	0.6	0.9	1.4	1.7	2.1	2.2	2.3	2.0	2.1	2.2	2.3	2.5	2.7	2.9	3.1	3.3	3.6	4.8	1.0
	-50	0.1	0.3	0.7	1.1	1.7	2.1	2.5	2.8	2.9	2.6	2.7	2.8	2.9	3.1	3.3	3.5	3.7	3.9	4.1	4.8	1.0
	-40	0.1	0.3	0.8	1.3	1.9	2.5	2.9	3.2	3.5	3.7	3.6	3.7	3.8	3.9	4.1	4.3	4.5	4.7	4.9	4.8	1.0
	-30	0.1	0.3	0.8	1.4	2.1	2.7	3.2	3.5	3.9	3.7	3.8	3.9	4.0	4.2	4.4	4.6	4.8	5.0	5.2	4.9	1.0
	-20	0.1	0.4	0.9	1.5	2.2	2.9	3.4	3.8	4.2	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.8	1.0
	-10	0.1	0.4	0.9	1.6	2.3	2.9	3.5	3.9	4.3	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	4.9	1.0
	0	0.1	0.4	0.9	1.6	2.3	2.9	3.5	3.9	4.3	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	4.9	1.0
	10	0.1	0.4	0.9	1.6	2.3	2.9	3.5	3.9	4.0	3.9	4.0	4.0	3.9	3.8	3.7	3.6	3.5	3.4	3.3	3.2	3.1
	20	0.1	0.4	0.9	1.5	2.2	2.9	3.4	3.8	3.9	3.8	3.8	3.7	3.6	3.5	3.4	3.3	3.2	3.1	3.0	2.9	2.8
	30	0.1	0.3	0.8	1.4	2.1	2.7	3.2	3.6	3.7	3.6	3.6	3.5	3.4	3.3	3.2	3.1	3.0	2.9	2.8	2.7	2.6
	40	0.1	0.3	0.8	1.3	1.9	2.5	2.9	3.2	3.6	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5
	50	0.1	0.3	0.7	1.2	1.7	2.2	2.5	2.8	2.9	2.8	2.8	2.7	2.6	2.5	2.4	2.3	2.2	2.1	2.0	1.9	1.8
	60	0.1	0.3	0.6	1.0	1.4	1.8	2.1	2.3	2.6	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5
	70	0.0	0.2	0.5	0.7	1.0	1.3	1.5	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	80	0.0	0.2	0.3	0.5	0.7	0.8	0.9	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0
	90	0.0	0.1	0.2	0.3	0.3	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
	Flux(T)	1.0	4.9	11.1	18.9	27.1	34.8	40.9	44.7	45.8	44.1	39.8	33.3	25.5	17.2	9.7	4.0	0.9	0.0	0.0	404	
	Flux(E)	1.0	4.8	11.0	18.8	27.0	34.6	40.7	44.5	45.5	43.8	39.5	32.9	25.1	16.8	9.3	3.6	0.3	0.0	0.0	399	

C Plane (°):0.0-360.0: 30.0
 Test Lab: acolyteled
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 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



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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	23.9	25.6	24.3	25.9	26.2	25.6	27.2	26.0	27.6	27.9
3H	25.1	26.6	25.5	27.0	27.3	27.3	28.8	27.7	29.2	29.6
4H	25.4	26.8	25.8	27.2	27.6	28.0	29.4	28.4	29.8	30.2
6H	25.5	26.8	25.9	27.1	27.6	28.4	29.7	28.8	30.1	30.5
8H	25.4	26.7	25.9	27.1	27.5	28.5	29.8	29.0	30.2	30.6
12H	25.4	26.6	25.9	27.0	27.5	28.6	29.8	29.1	30.2	30.7
X=4H Y=2H	24.5	25.9	24.9	26.3	26.7	26.3	27.7	26.7	28.1	28.4
3H	25.8	27.0	26.3	27.4	27.8	28.3	29.5	28.7	29.9	30.3
4H	26.1	27.2	26.6	27.7	28.1	29.0	30.1	29.5	30.5	31.0
6H	26.3	27.2	26.7	27.7	28.1	29.6	30.5	30.1	31.0	31.5
8H	26.3	27.1	26.7	27.6	28.1	29.8	30.7	30.2	31.1	31.6
12H	26.2	27.0	26.7	27.5	28.0	29.9	30.7	30.4	31.2	31.7
X=8H Y=4H	26.4	27.2	26.8	27.7	28.2	29.4	30.3	29.9	30.8	31.3
6H	26.5	27.2	27.0	27.7	28.2	30.1	30.9	30.7	31.4	31.9
8H	26.5	27.2	27.0	27.7	28.2	30.4	31.1	30.9	31.6	32.1
12H	26.5	27.1	27.0	27.6	28.2	30.6	31.2	31.1	31.7	32.3
X=12H Y=4H	26.4	27.2	26.9	27.7	28.1	29.5	30.3	30.0	30.8	31.3
6H	26.5	27.2	27.0	27.7	28.2	30.3	31.0	30.8	31.4	32.0
8H	26.5	27.1	27.0	27.6	28.2	30.6	31.2	31.1	31.7	32.3

Calculate in accordance with CIE 190:2010

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 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	0.65	0.73	0.78	0.86	0.91	0.94	0.99	1.02
	0.30		0.47	0.57	0.65	0.71	0.79	0.85	0.89	0.95	0.98
	0.20		0.41	0.51	0.59	0.65	0.74	0.80	0.84	0.91	0.95
0.50	0.50	0.20	0.53	0.63	0.70	0.75	0.82	0.87	0.90	0.95	0.98
	0.30		0.46	0.56	0.63	0.69	0.77	0.82	0.86	0.91	0.95
	0.20		0.41	0.51	0.58	0.64	0.72	0.78	0.82	0.88	0.92
0.30	0.50	0.20	0.52	0.61	0.68	0.72	0.79	0.84	0.87	0.91	0.94
	0.30		0.45	0.55	0.62	0.67	0.75	0.80	0.83	0.88	0.91
	0.20		0.40	0.50	0.57	0.63	0.71	0.76	0.80	0.85	0.89
0.00	0.00	0.00	0.38	0.47	0.54	0.60	0.67	0.72	0.76	0.81	0.84
Rating:5W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											

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 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	1.02	0.85	0.72	0.63	0.51	0.42	0.36	0.28	0.23	
	0.30		0.85	0.72	0.63	0.56	0.46	0.39	0.34	0.27	0.22	
	0.20		0.73	0.63	0.56	0.50	0.42	0.36	0.31	0.25	0.21	
0.50	0.50	0.20	0.98	0.81	0.69	0.61	0.49	0.44	0.35	0.27	0.22	
	0.30		0.83	0.71	0.61	0.54	0.44	0.37	0.32	0.26	0.21	
	0.20		0.72	0.62	0.55	0.49	0.41	0.35	0.30	0.24	0.20	
0.30	0.50	0.20	0.96	0.78	0.67	0.58	0.46	0.39	0.33	0.26	0.21	
	0.30		0.82	0.69	0.60	0.53	0.43	0.36	0.31	0.25	0.20	
	0.20		0.71	0.61	0.54	0.48	0.40	0.34	0.29	0.23	0.20	
0.00	0.00	0.00	0.61	0.52	0.45	0.40	0.32	0.27	0.24	0.19	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												

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 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	0.19	0.20	0.20	0.21	0.22	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	0.15	0.16	0.17
0.50	0.50	0.20	0.17	0.18	0.19	0.19	0.20	0.21	0.21	0.22	0.22
	0.30		0.10	0.12	0.13	0.14	0.15	0.17	0.17	0.19	0.19
	0.20		0.05	0.07	0.08	0.10	0.11	0.13	0.14	0.16	0.17
0.30	0.50	0.20	0.16	0.17	0.18	0.19	0.19	0.20	0.20	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	0.15	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											