

Report No.: 01

Test Time: 2017/2/6 11:10

Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RB243.035PH

Luminous Length (mm): 500mm

Luminous Height (mm): 1mm

Current: 0.202 A

Power Factor: 1.000

Luminaire Description: RB243.035PH

Luminous Width (mm): 8mm

Voltage: 24.0 V

Power: 4.86 W

Photometric Results

CIE Class: Direct

Measurement Flux: 443.9 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H115.4

Vertical Diffuse Angle(50%): V115.3

Luminaire Efficacy Rating (LER): 91

Max. Intensity: 149.12 cd

Total Rated Lamp Lumens: 443.9 lm

Efficiency: 100%

Upward Ratio: 1%

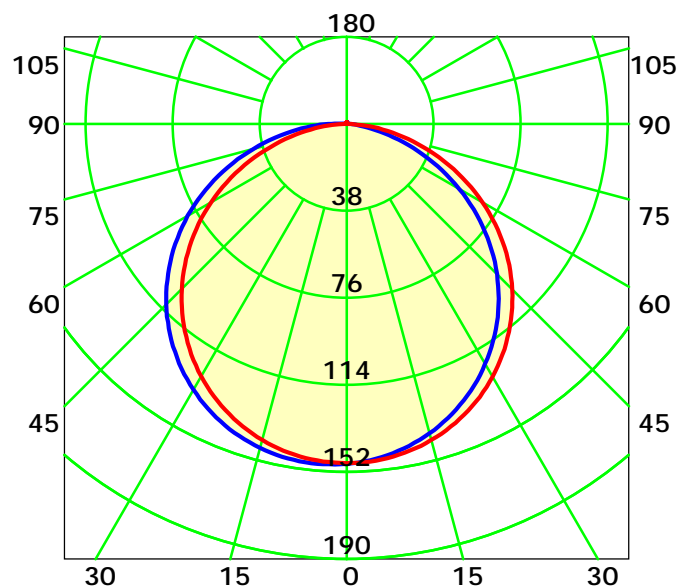
Central Intensity: 148.57 cd

Pos of Max. Intensity: H180 V5

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 115.4° 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

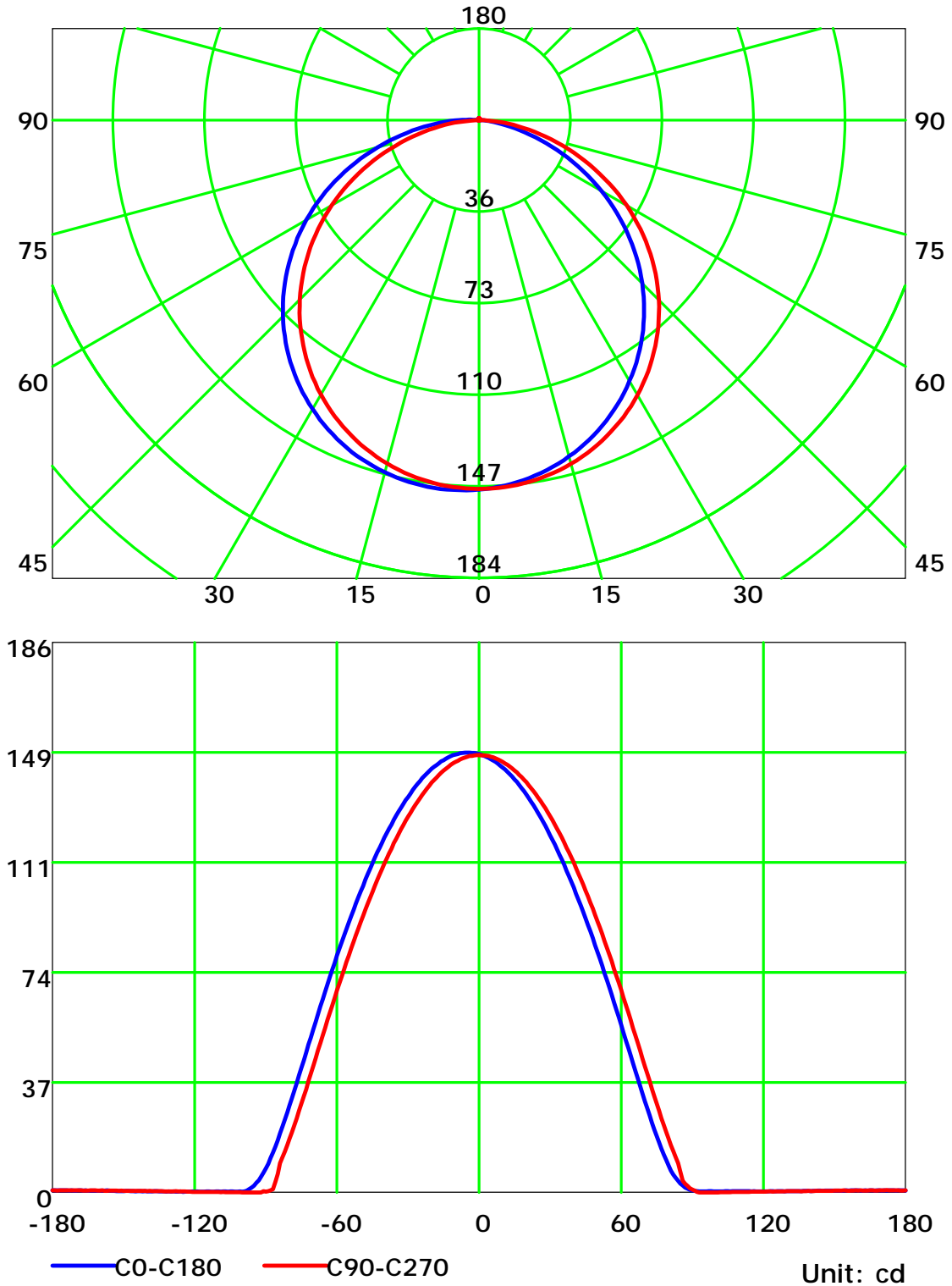
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

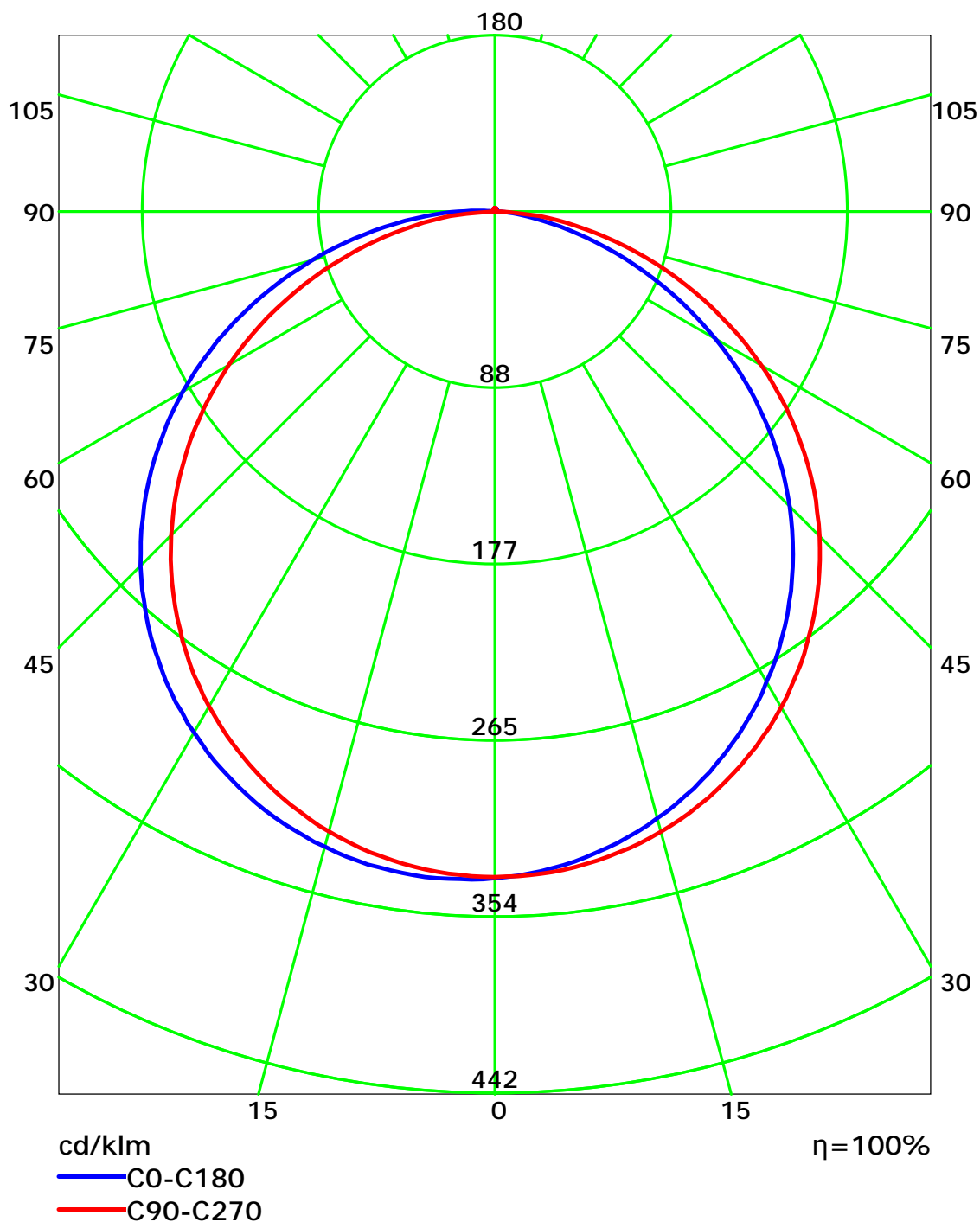
Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 30.0
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:

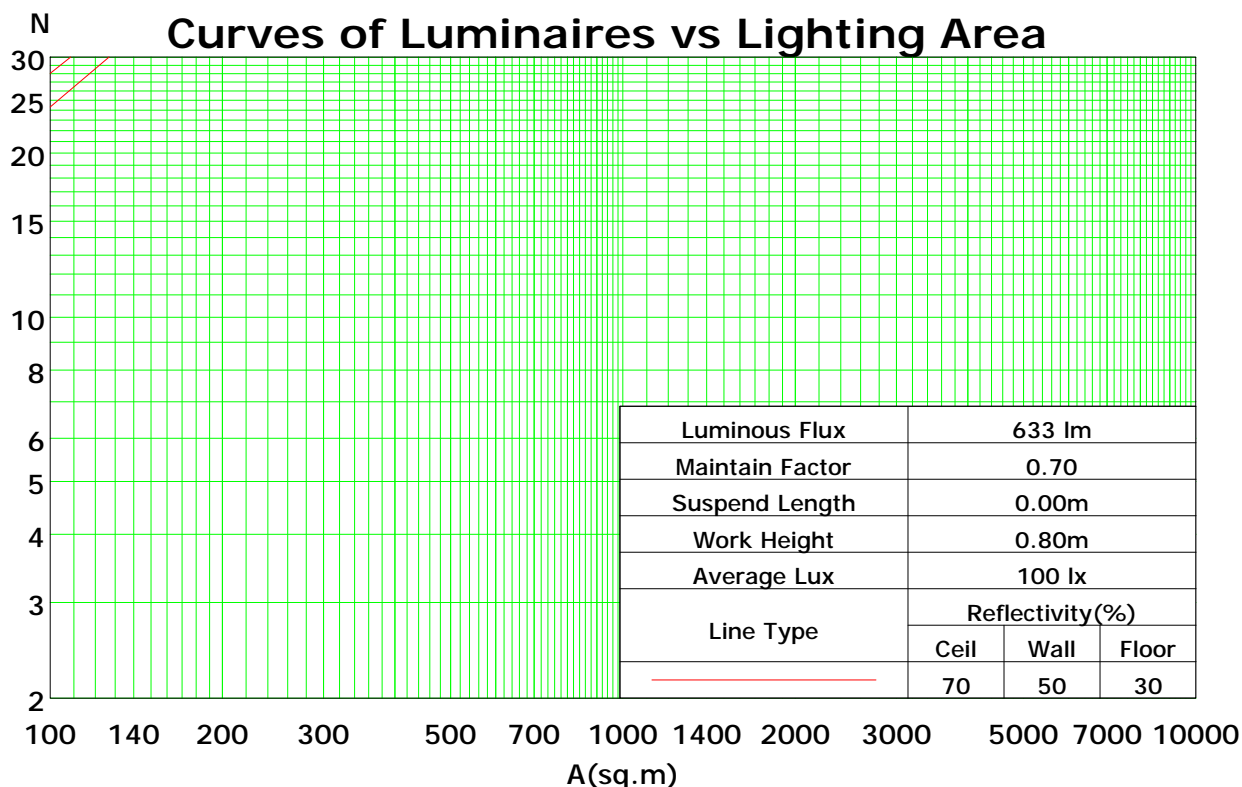
Coefficients Of Utilization - Zonal Cavity Method

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	79	70	64	87	77	69	63	74	67	62	71	65	61	68	63	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	56	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	46	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

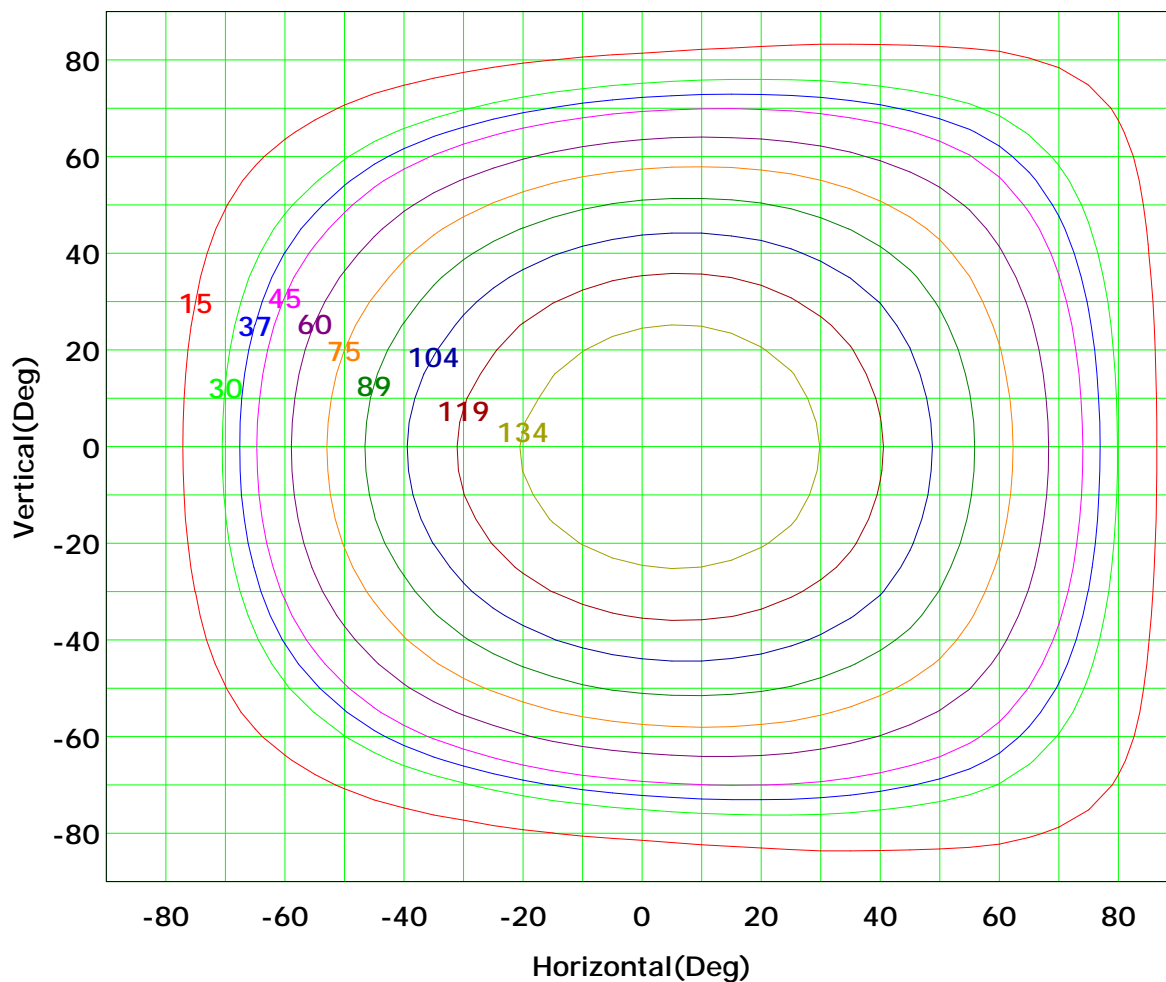
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Isocandela (rectangle)



I_{max} (100%): 149 cd

(10%):	15 cd	(20%):	30 cd
(25%):	37 cd	(30%):	45 cd
(40%):	60 cd	(50%):	75 cd
(60%):	89 cd	(70%):	104 cd
(80%):	119 cd	(90%):	134 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

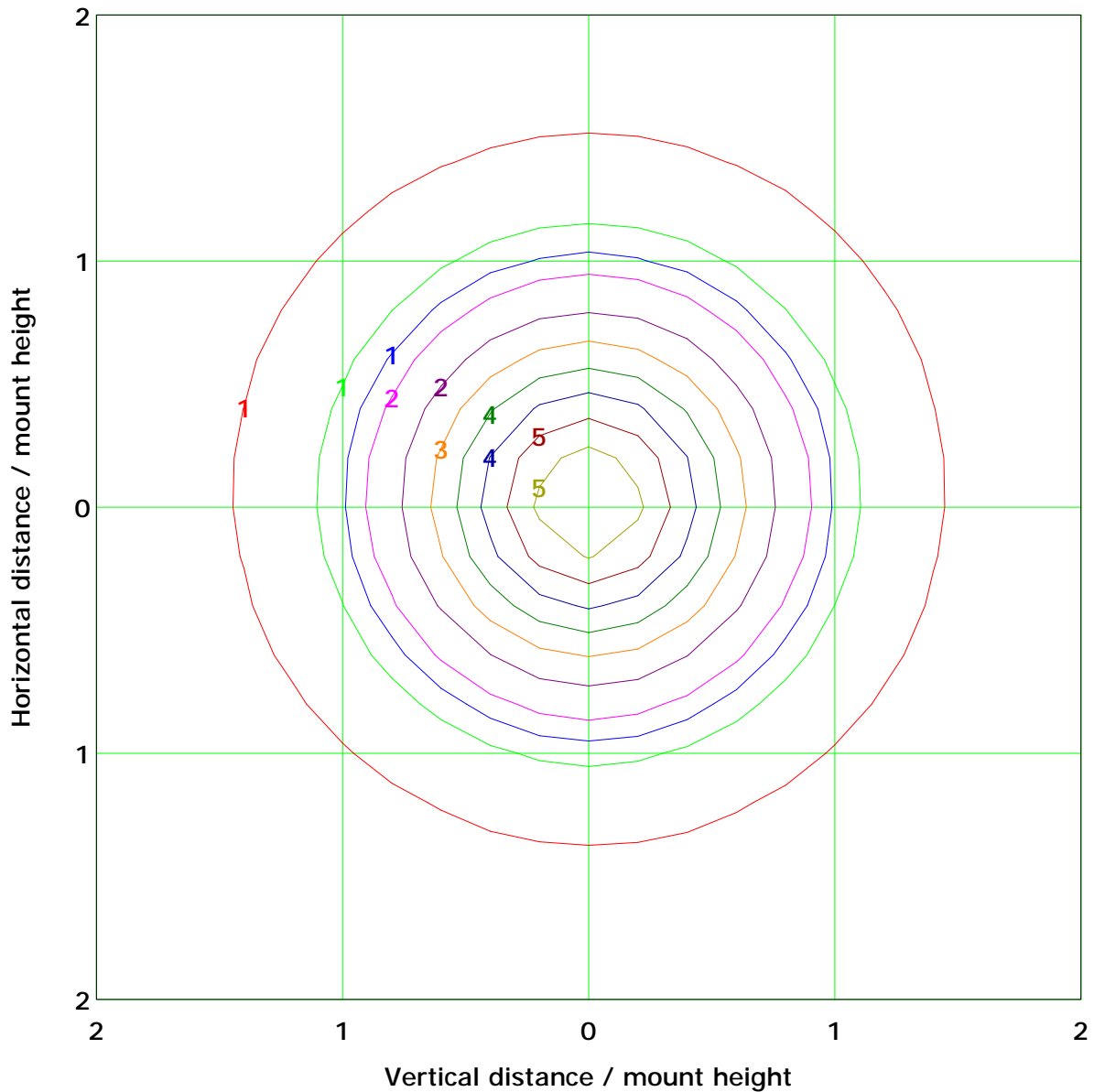
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 6.0 lx

(10%): 0.6 lx	(20%): 1.2 lx
(25%): 1.5 lx	(30%): 1.8 lx
(40%): 2.4 lx	(50%): 3.0 lx
(60%): 3.6 lx	(70%): 4.2 lx
(80%): 4.8 lx	(90%): 5.4 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

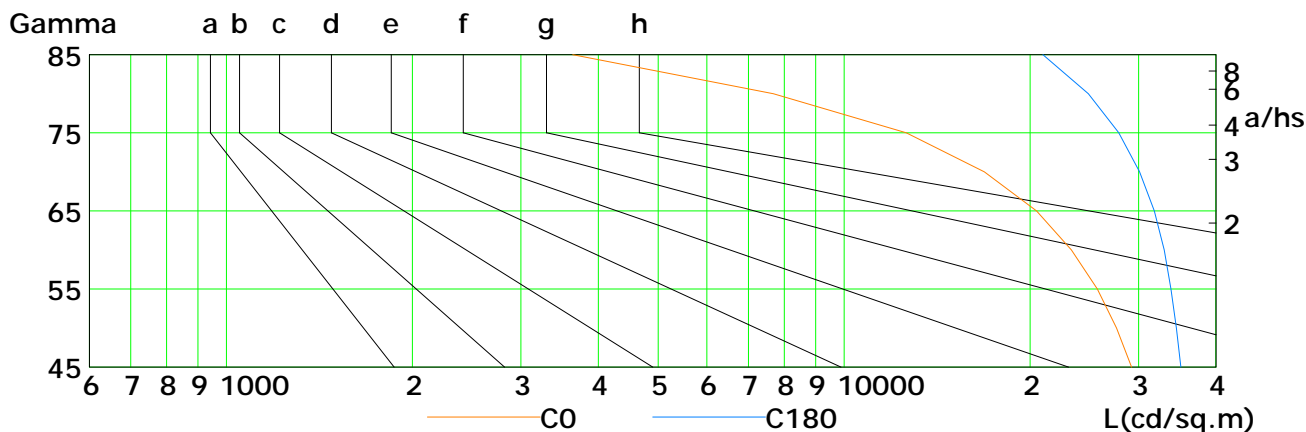
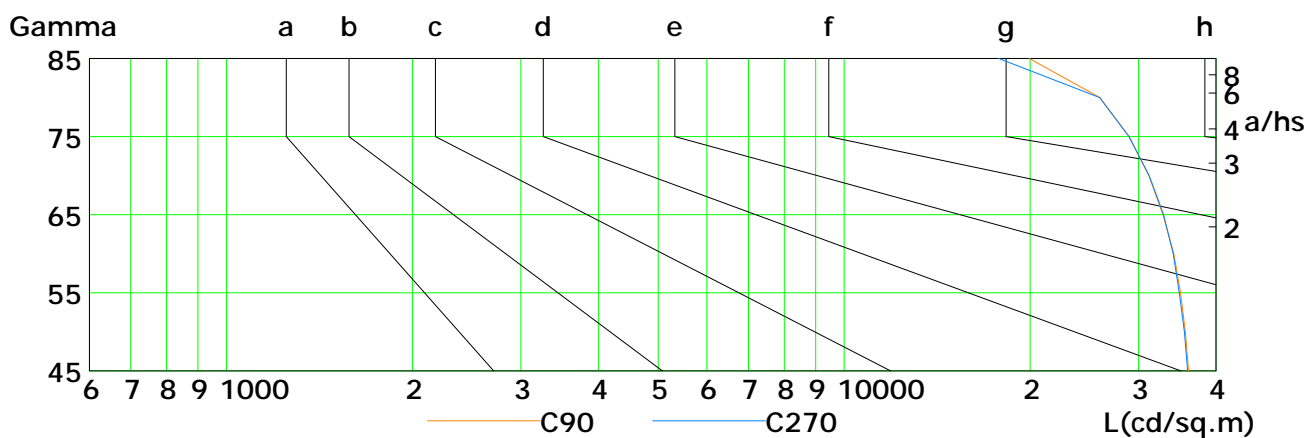
Humidity: 60%

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	29215	27615	25719	23346	20493	16872	12613	7683	3638
C90	36121	35693	35056	34182	32838	31172	28916	25965	19939
C180	35101	34538	33844	32992	31811	30083	27841	24869	20987
C270	35994	35572	34887	34102	32921	31208	28916	25923	17807

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

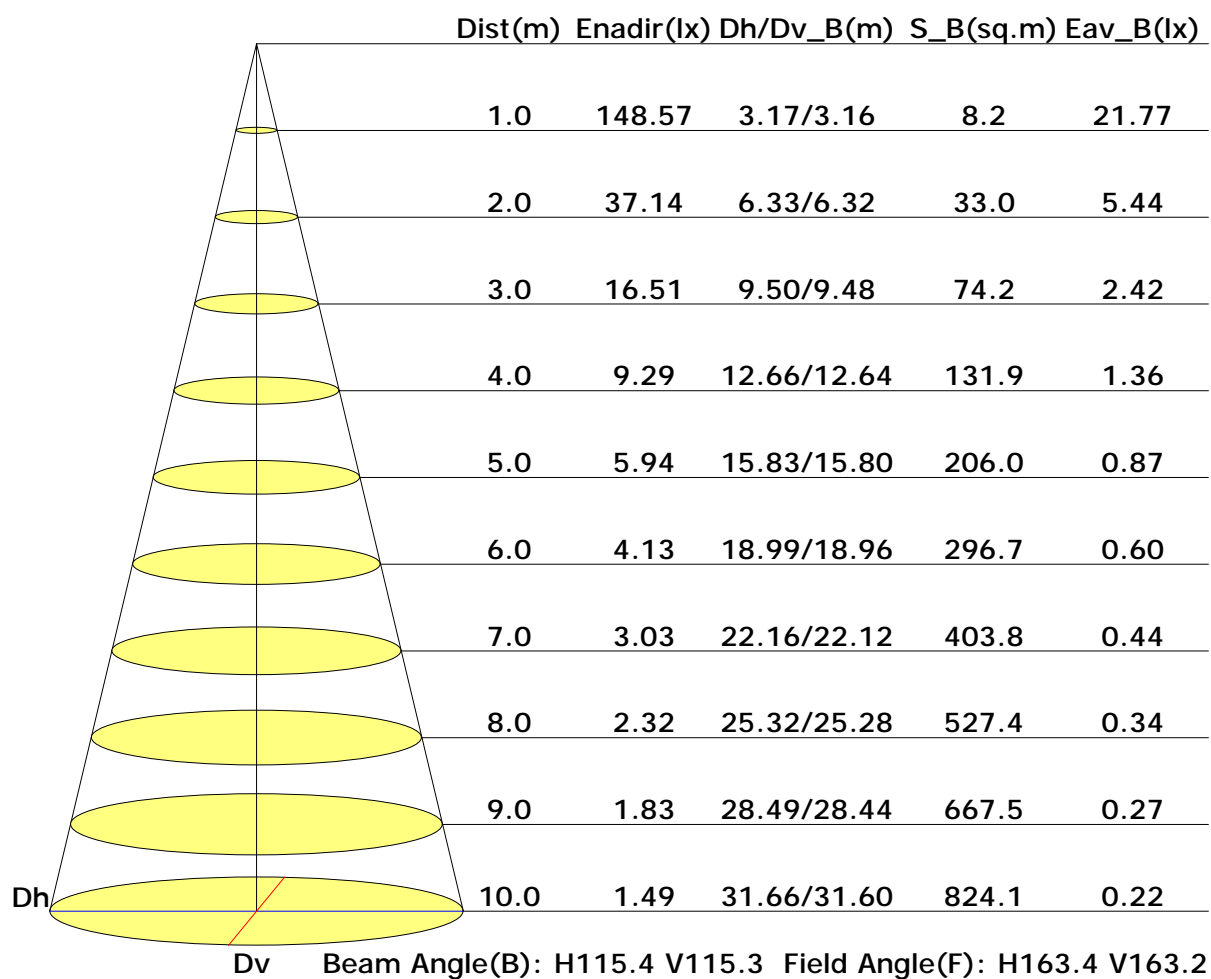
Test Device: GPM-1800B

Distance: 9.028 m

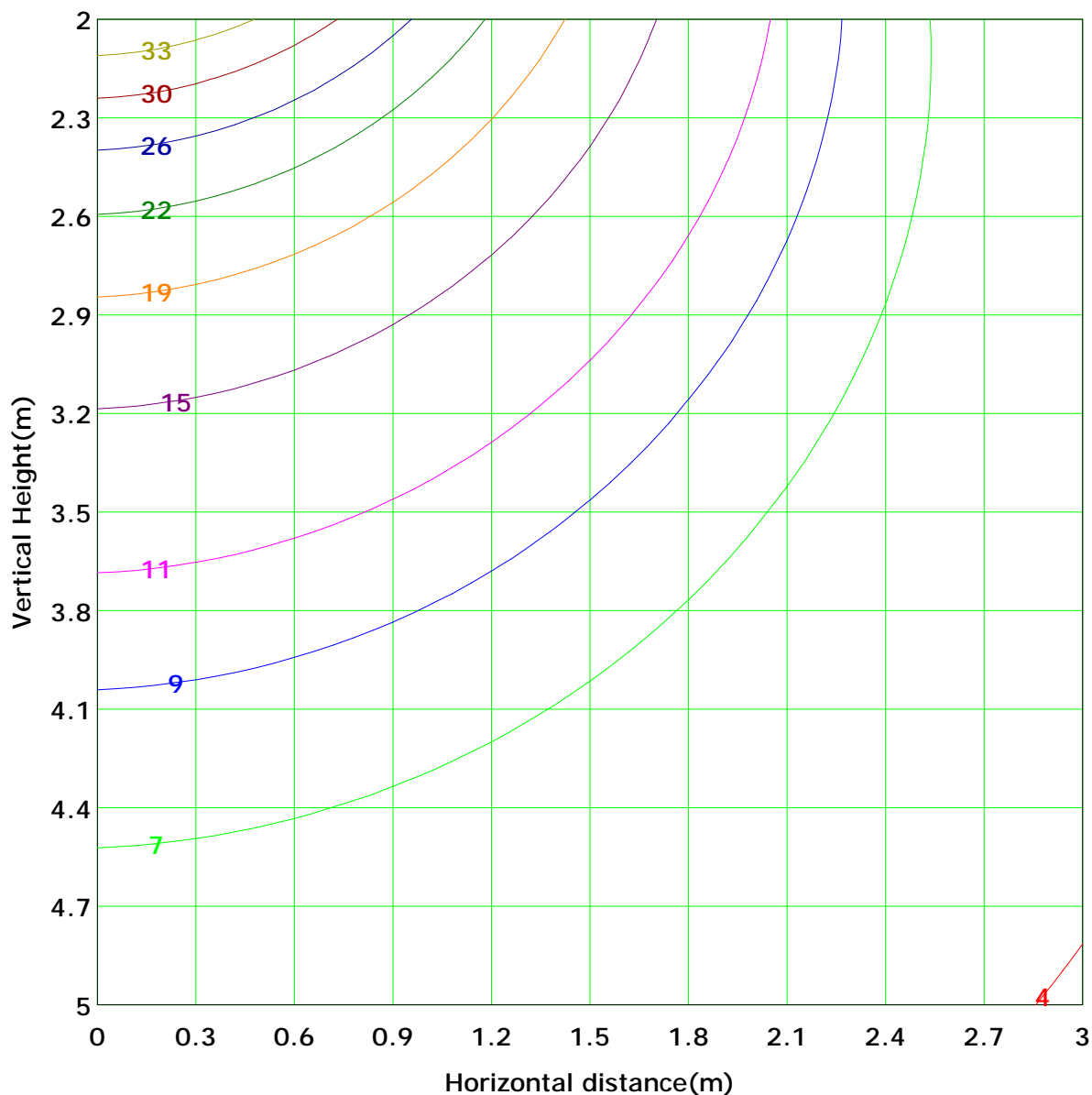
Humidity: 60%

Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 37.1 lx
(10%): 3.7 lx	(20%): 7.4 lx	
(25%): 9.3 lx	(30%): 11.1 lx	
(40%): 14.9 lx	(50%): 18.6 lx	
(60%): 22.3 lx	(70%): 26.0 lx	
(80%): 29.7 lx	(90%): 33.4 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	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.8	0.5
	-80	0.0	0.1	0.3	0.4	0.6	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	4.2	3.9
	-70	0.0	0.2	0.4	0.7	1.0	1.3	1.5	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	10.4	10.1
	-60	0.0	0.2	0.5	0.9	1.3	1.8	2.1	2.4	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	18.6	18.3
	-50	0.0	0.2	0.6	1.1	1.7	2.2	2.7	3.0	3.1	3.0	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	27.6	27.3
	-40	0.0	0.3	0.7	1.3	2.0	2.6	3.1	3.5	3.6	3.6	3.3	2.8	2.3	2.4	2.4	2.4	2.4	2.4	2.4	36.2	35.9
	-30	0.1	0.3	0.8	1.4	2.2	2.9	3.5	3.9	4.1	4.0	3.7	3.1	2.5	2.8	2.8	2.8	2.8	2.8	2.8	43.4	43.1
	-20	0.1	0.3	0.8	1.5	2.3	3.1	3.7	4.1	4.3	4.3	3.9	3.4	2.7	3.5	3.5	3.5	3.5	3.5	3.5	48.2	47.9
	-10	0.1	0.3	0.9	1.6	2.4	3.2	3.8	4.3	4.5	4.4	4.1	3.5	2.8	3.2	3.2	3.2	3.2	3.2	3.2	50.1	49.8
	0	0.1	0.3	0.9	1.6	2.4	3.2	3.8	4.3	4.5	4.4	4.1	3.5	2.8	3.2	3.2	3.2	3.2	3.2	3.2	48.8	48.5
	10	0.1	0.3	0.9	1.6	2.4	3.2	3.8	4.3	4.5	4.4	4.1	3.5	2.8	3.2	3.2	3.2	3.2	3.2	3.2	44.6	44.2
	20	0.1	0.3	0.9	1.6	2.4	3.2	3.8	4.3	4.5	4.4	4.1	3.5	2.8	3.2	3.2	3.2	3.2	3.2	3.2	37.9	37.4
	30	0.1	0.3	0.9	1.6	2.4	3.2	3.8	4.3	4.5	4.4	4.1	3.5	2.8	3.2	3.2	3.2	3.2	3.2	3.2	29.5	29.1
	40	0.1	0.3	0.9	1.6	2.4	3.2	3.8	4.3	4.5	4.4	4.1	3.5	2.8	3.2	3.2	3.2	3.2	3.2	3.2	20.5	20.1
	50	0.1	0.3	0.9	1.6	2.4	3.2	3.8	4.3	4.5	4.4	4.1	3.5	2.8	3.2	3.2	3.2	3.2	3.2	3.2	12.2	11.7
	60	0.0	0.2	0.5	0.9	1.4	1.8	2.2	2.4	2.5	2.4	2.2	1.8	1.4	1.8	1.8	1.8	1.8	1.8	1.8	5.6	5.1
	70	0.0	0.2	0.4	0.7	1.0	1.3	1.5	1.7	1.7	1.6	1.5	1.2	0.9	1.2	1.2	1.2	1.2	1.2	1.2	1.6	0.9
	80	0.0	0.1	0.3	0.5	0.6	0.8	0.9	1.0	0.9	0.9	0.8	0.6	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.1	0.0
	90	0.0	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
	Flux(T)	0.8	4.2	10.4	18.6	27.6	36.2	43.4	48.2	50.1	48.8	44.6	37.9	29.5	20.5	12.2	5.6	1.6	0.1	440		
	Flux(E)	0.5	3.9	10.1	18.3	27.3	35.9	43.1	47.9	49.8	48.5	44.2	37.4	29.1	20.1	11.7	5.1	0.9	0.0	434		

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

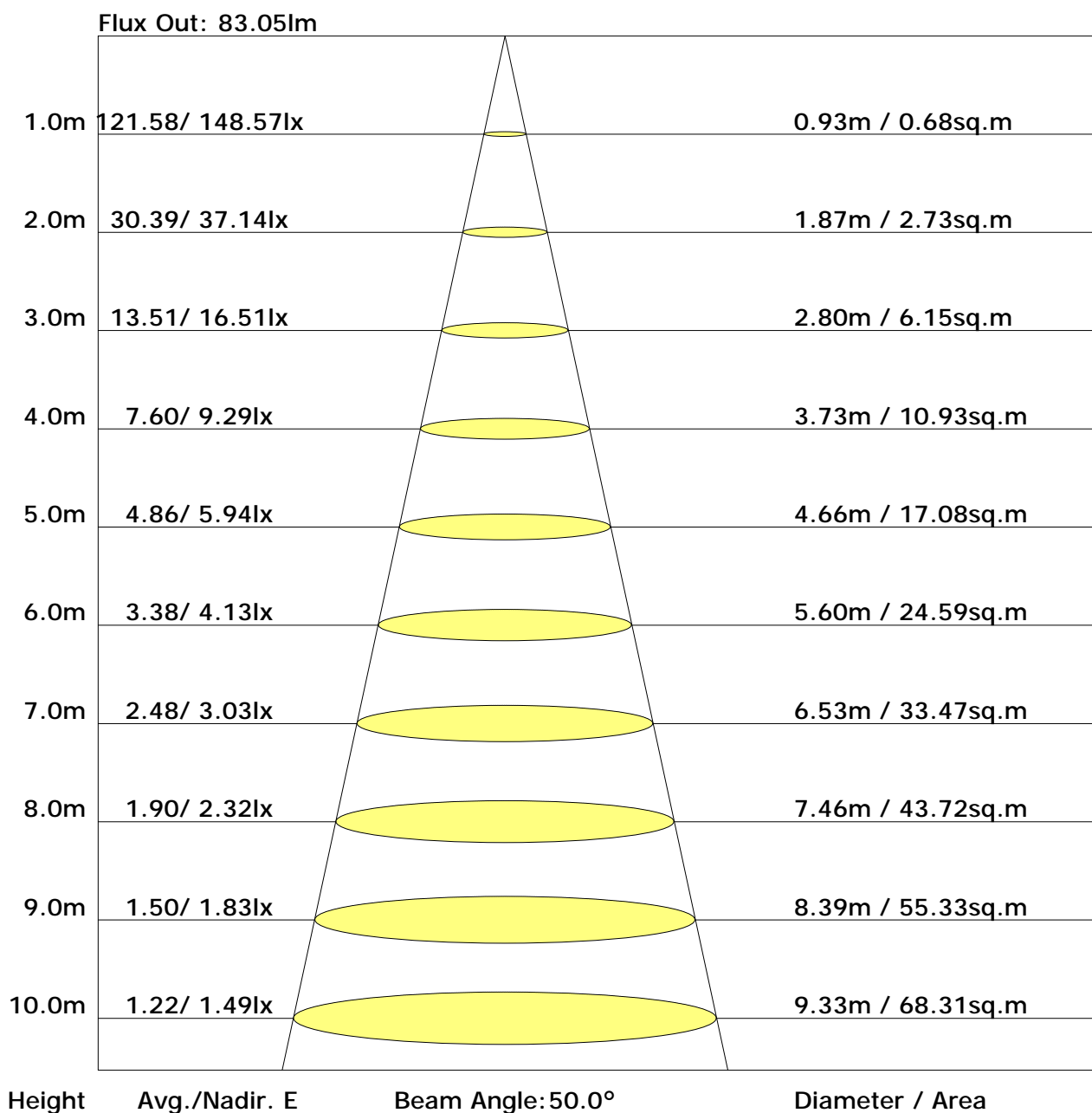
Test Device: GPM-1800B

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	26.0	27.6	26.3	27.9	28.3	26.8	28.4	27.1	28.7	29.1
3H	27.4	28.9	27.8	29.3	29.6	28.4	29.9	28.8	30.3	30.6
4H	27.9	29.3	28.3	29.6	30.0	29.0	30.4	29.4	30.8	31.2
6H	28.1	29.4	28.5	29.8	30.2	29.4	30.7	29.8	31.1	31.5
8H	28.2	29.4	28.6	29.8	30.2	29.5	30.8	30.0	31.2	31.6
12H	28.2	29.4	28.6	29.8	30.2	29.6	30.8	30.0	31.2	31.6
X=4H Y=2H	26.5	27.9	26.9	28.3	28.7	27.4	28.8	27.8	29.2	29.6
3H	28.1	29.3	28.6	29.7	30.1	29.3	30.5	29.7	30.9	31.3
4H	28.7	29.7	29.1	30.2	30.6	30.0	31.1	30.5	31.5	32.0
6H	29.0	29.9	29.5	30.4	30.8	30.5	31.5	31.0	31.9	32.4
8H	29.0	29.9	29.5	30.4	30.9	30.7	31.6	31.2	32.0	32.5
12H	29.1	29.9	29.6	30.4	30.8	30.8	31.6	31.3	32.1	32.5
X=8H Y=4H	28.9	29.8	29.4	30.2	30.7	30.4	31.3	30.9	31.7	32.2
6H	29.2	30.0	29.7	30.5	31.0	31.0	31.7	31.5	32.2	32.7
8H	29.3	30.0	29.8	30.5	31.0	31.2	31.9	31.8	32.4	32.9
12H	29.4	30.0	29.9	30.5	31.0	31.4	32.0	31.9	32.5	33.0
X=12H Y=4H	28.9	29.7	29.4	30.2	30.7	30.4	31.2	30.9	31.7	32.2
6H	29.3	29.9	29.8	30.4	31.0	31.1	31.8	31.6	32.2	32.8
8H	29.4	30.0	29.9	30.5	31.0	31.4	32.0	31.9	32.5	33.0

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	0.99	1.02
	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	0.95
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	0.91	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	0.63	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	0.76	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	1.01	0.84	0.72	0.63	0.50	0.42	0.36	0.28	0.23	
	0.30		0.85	0.72	0.62	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	0.77	0.66	0.57	0.46	0.38	0.32	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	0.53	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
Rating:5W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											