

Report No.: 01

Test Time: 2017/2/6 11:54

Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RB243.027PH

Luminous Length (mm): 500mm

Luminous Height (mm): 1mm

Current: 0.196 A

Power Factor: 1.000

Luminaire Description: RB243.027PH

Luminous Width (mm): 8mm

Voltage: 24.0 V

Power: 4.70 W

Photometric Results

CIE Class: Direct

Measurement Flux: 396.9 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H114.2

Vertical Diffuse Angle(50%): V114.2

Luminaire Efficacy Rating (LER): 84

Max. Intensity: 135.62 cd

Total Rated Lamp Lumens: 396.9 lm

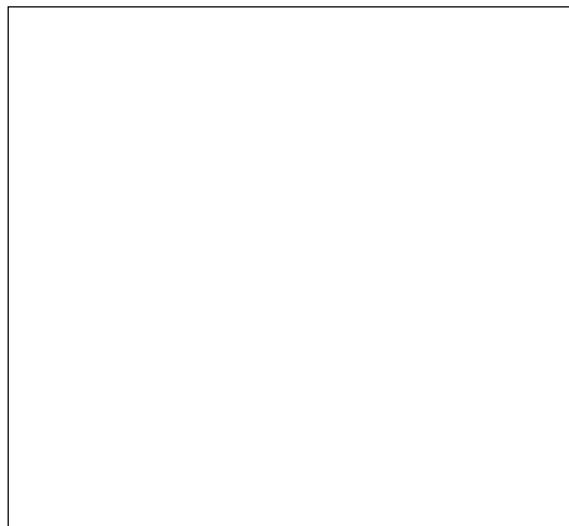
Efficiency: 100%

Upward Ratio: 1%

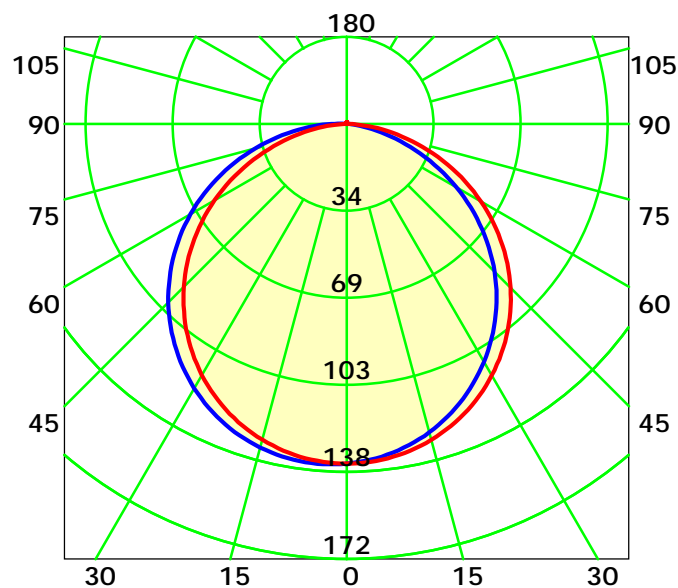
Central Intensity: 135.06 cd

Pos of Max. Intensity: H180 V5

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 114.2° 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

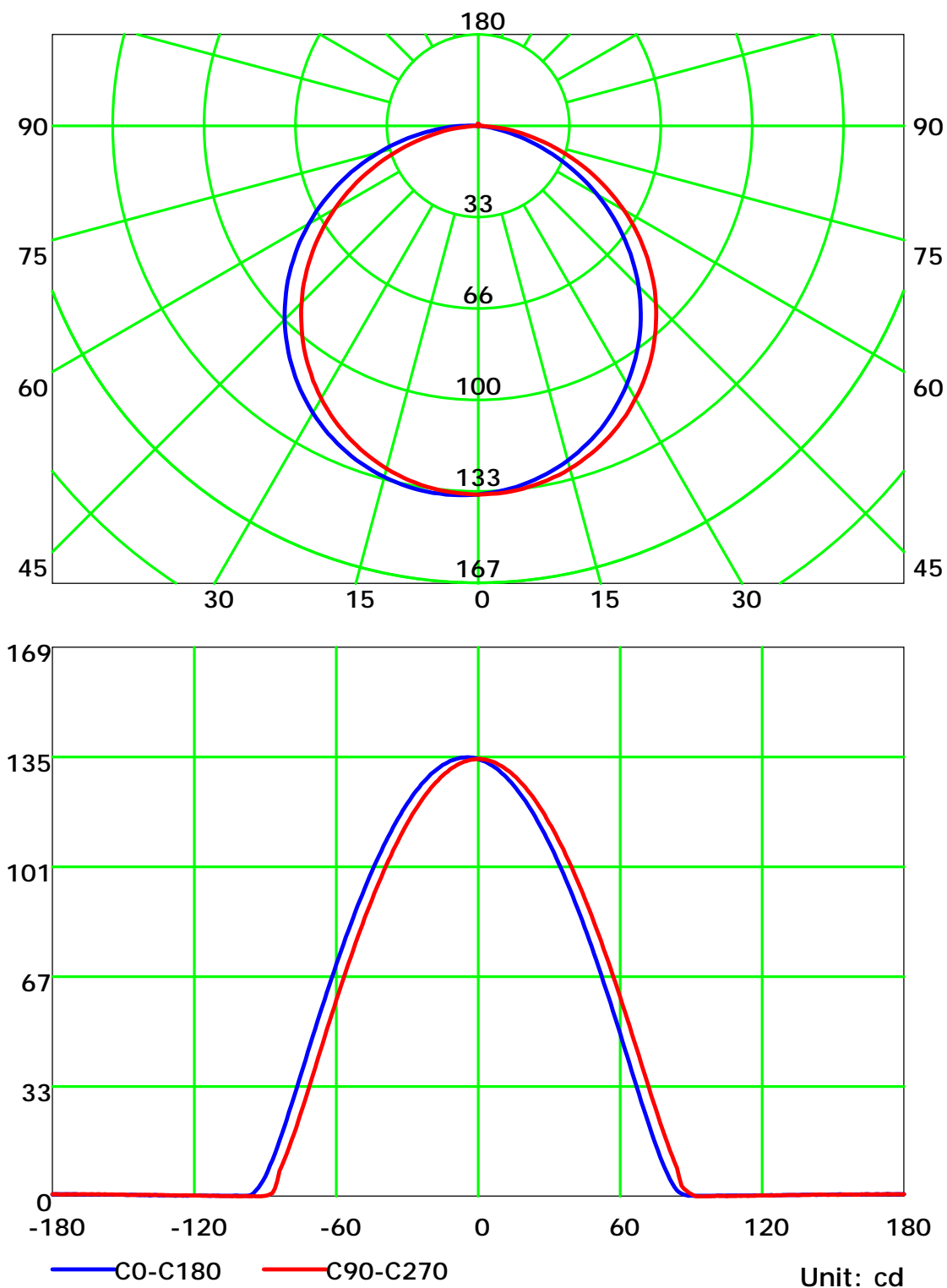
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

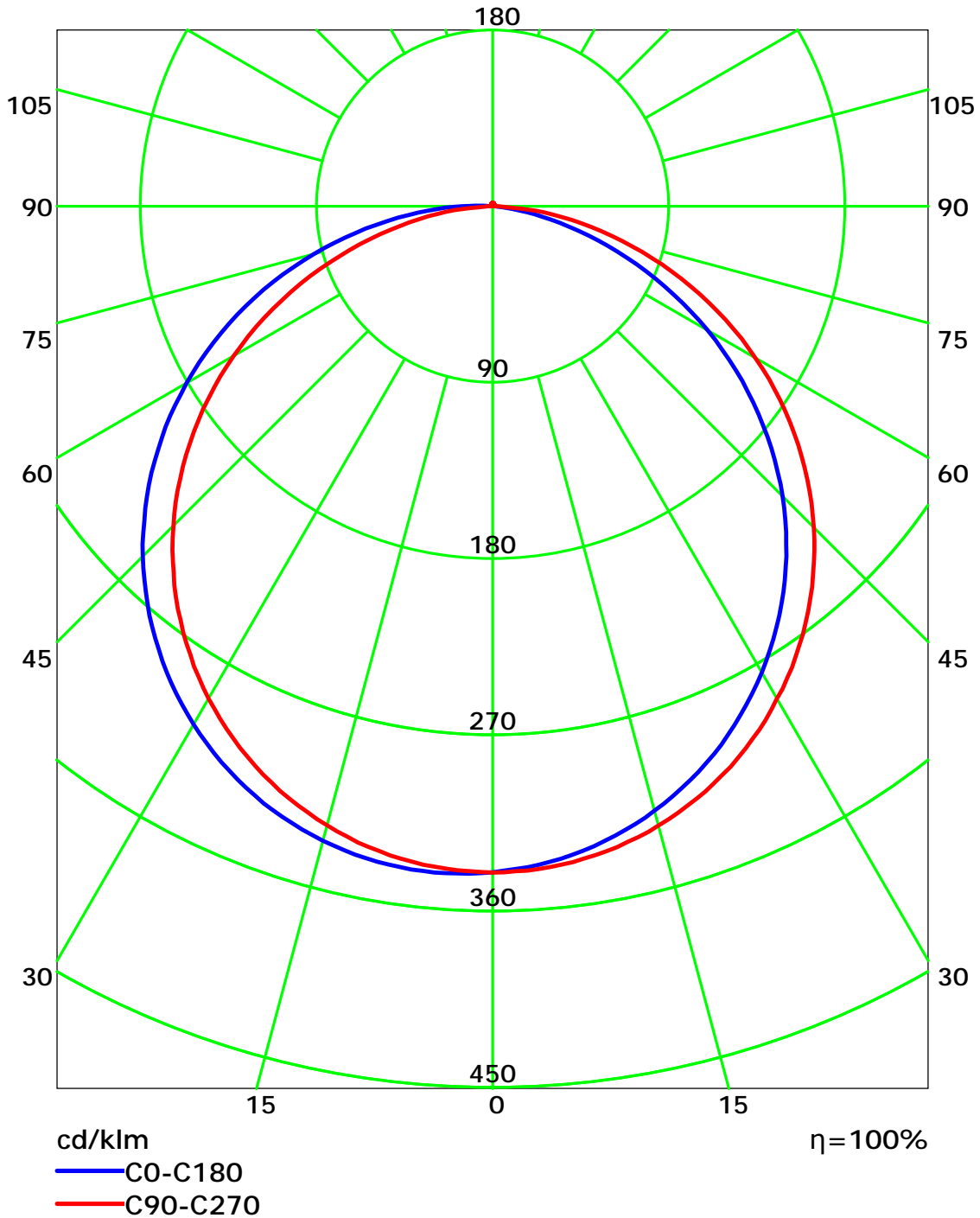
Luminous Intensity Distribution Curve



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:

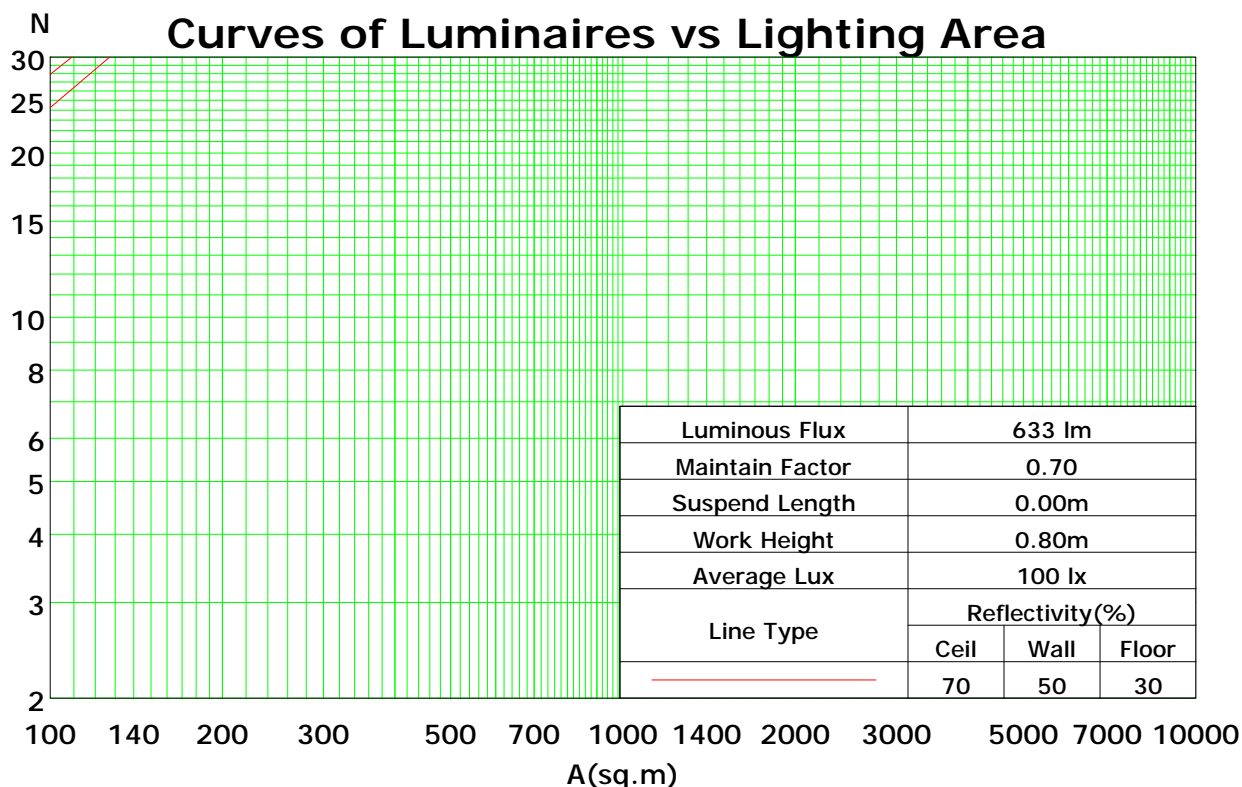
Coefficients Of Utilization - Zonal Cavity Method

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	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	53	46	59	51	46	57	50	45	55	49	44	42
6	69	56	47	40	68	55	46	40	53	46	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	36	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	46	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	29	55	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

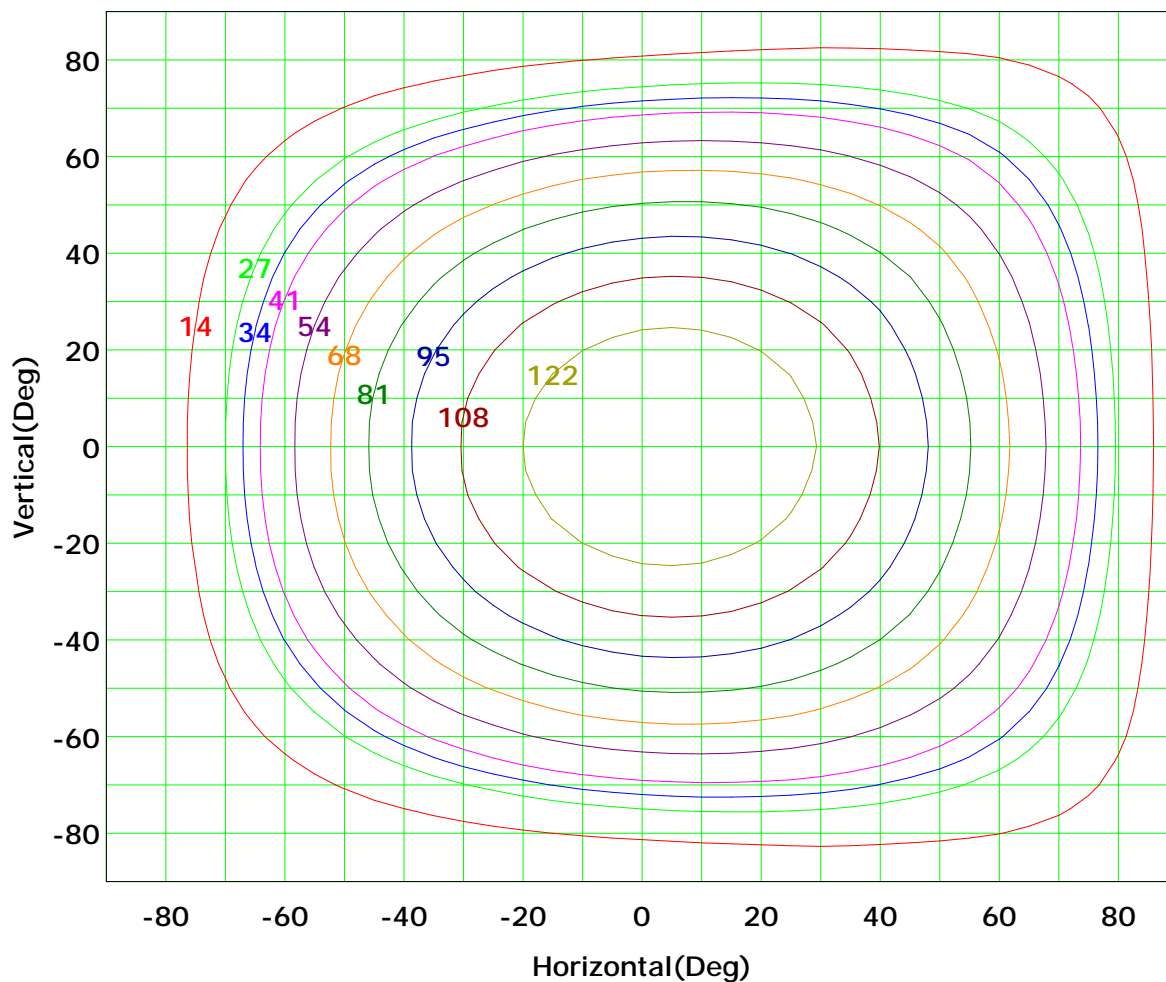
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Isocandela (rectangle)



I_{max} (100%): 136 cd

(10%):	14 cd	(20%):	27 cd
(25%):	34 cd	(30%):	41 cd
(40%):	54 cd	(50%):	68 cd
(60%):	81 cd	(70%):	95 cd
(80%):	108 cd	(90%):	122 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

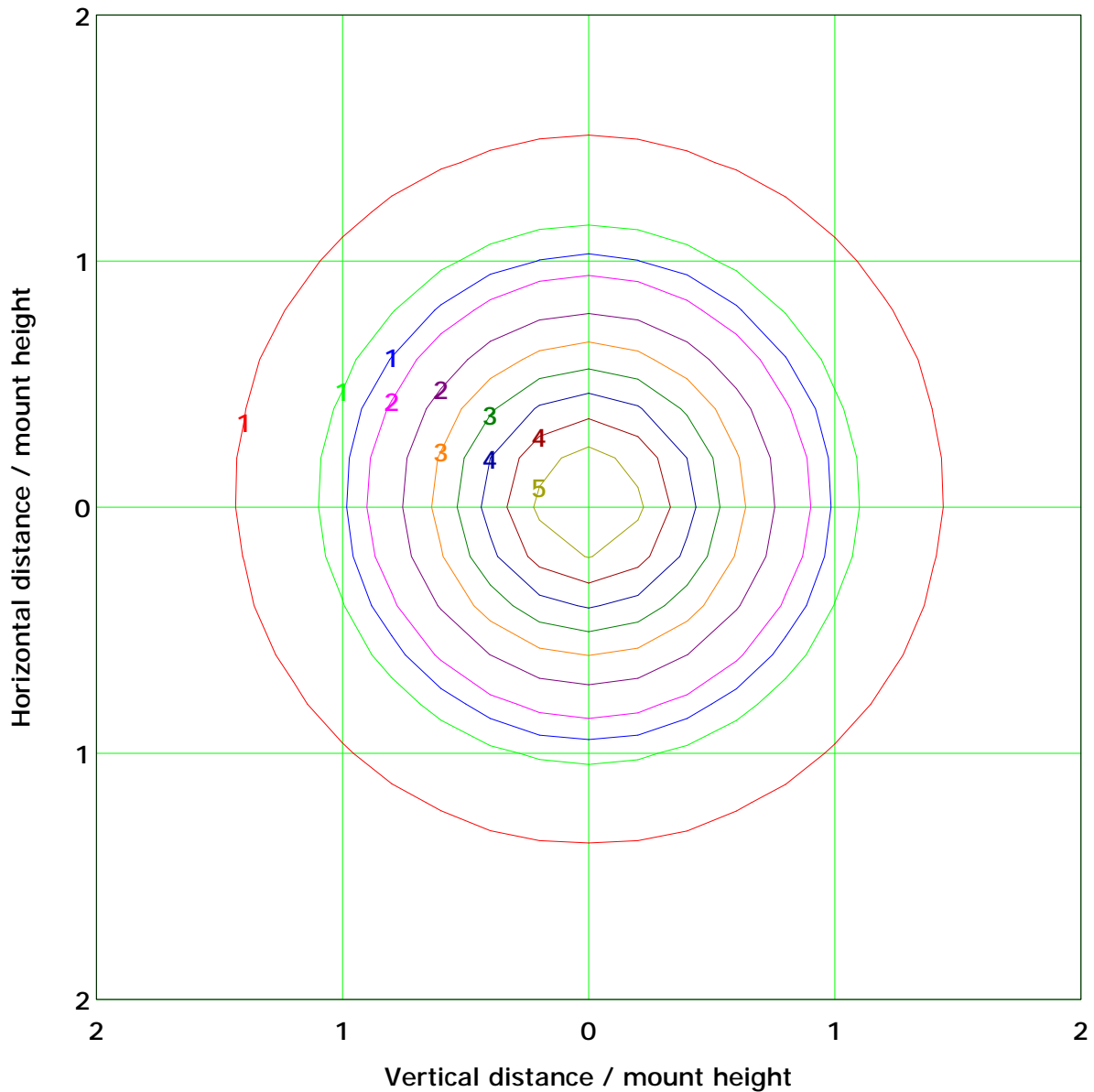
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 5.4 lx

(10%): 0.5 lx	(20%): 1.1 lx
(25%): 1.4 lx	(30%): 1.6 lx
(40%): 2.2 lx	(50%): 2.7 lx
(60%): 3.2 lx	(70%): 3.8 lx
(80%): 4.3 lx	(90%): 4.9 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

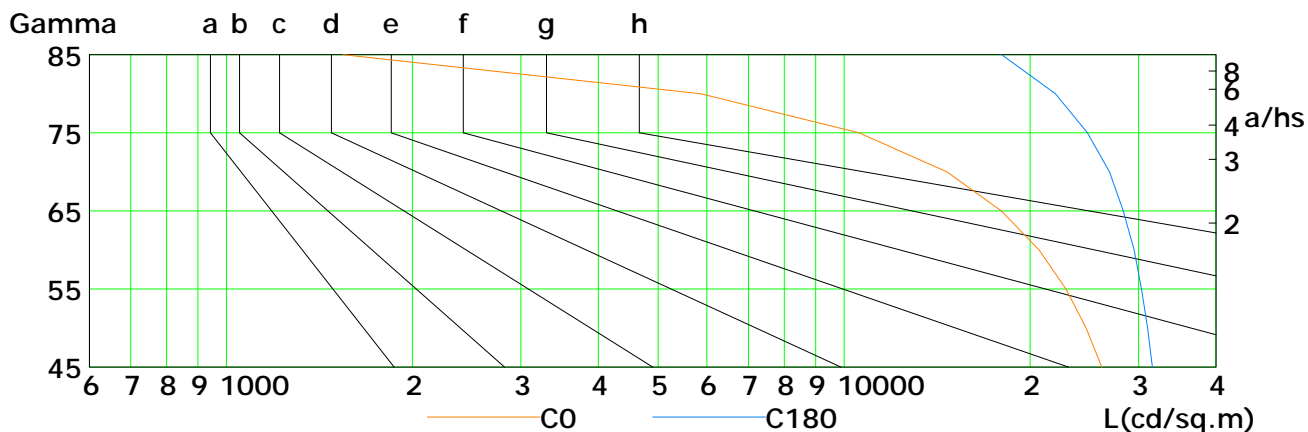
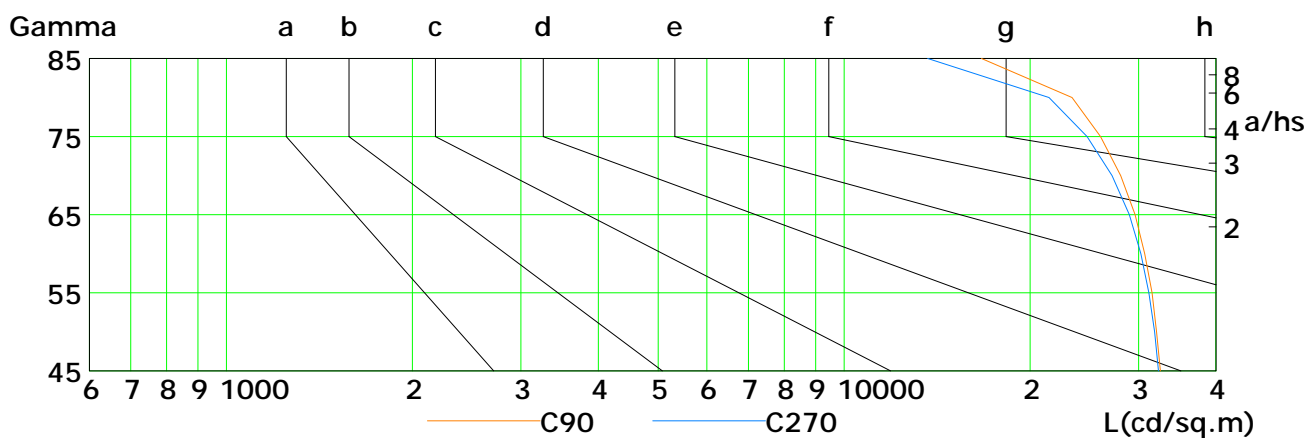
Humidity: 60%

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	26138	24653	22875	20690	17984	14680	10565	5864	1547
C90	32515	32053	31510	30689	29598	28053	26031	23403	16686
C180	31556	31004	30293	29478	28330	26916	24779	21980	17999
C270	32307	31828	31162	30235	28980	27145	24746	21481	13657

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

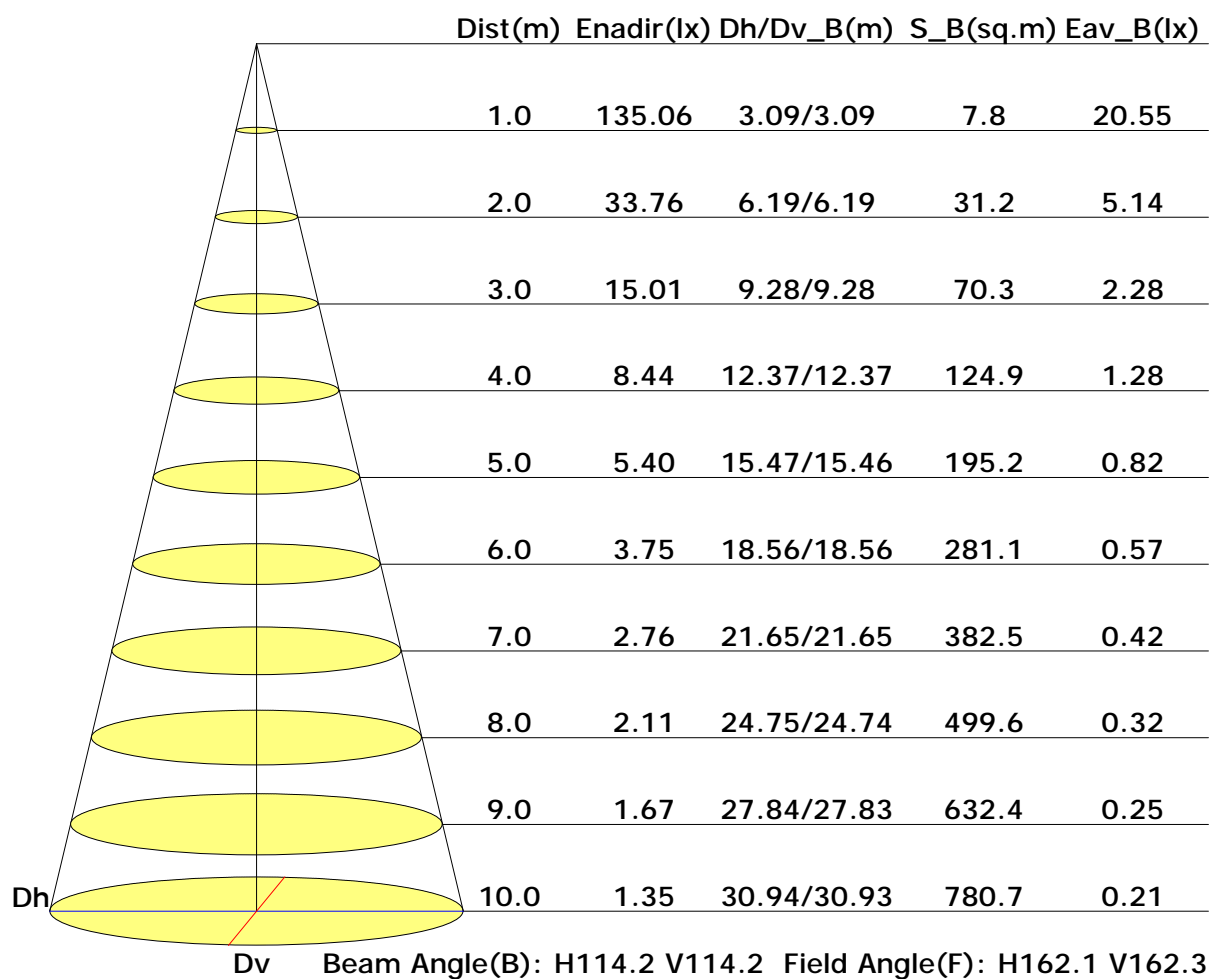
Test Device: GPM-1800B

Distance: 9.028 m

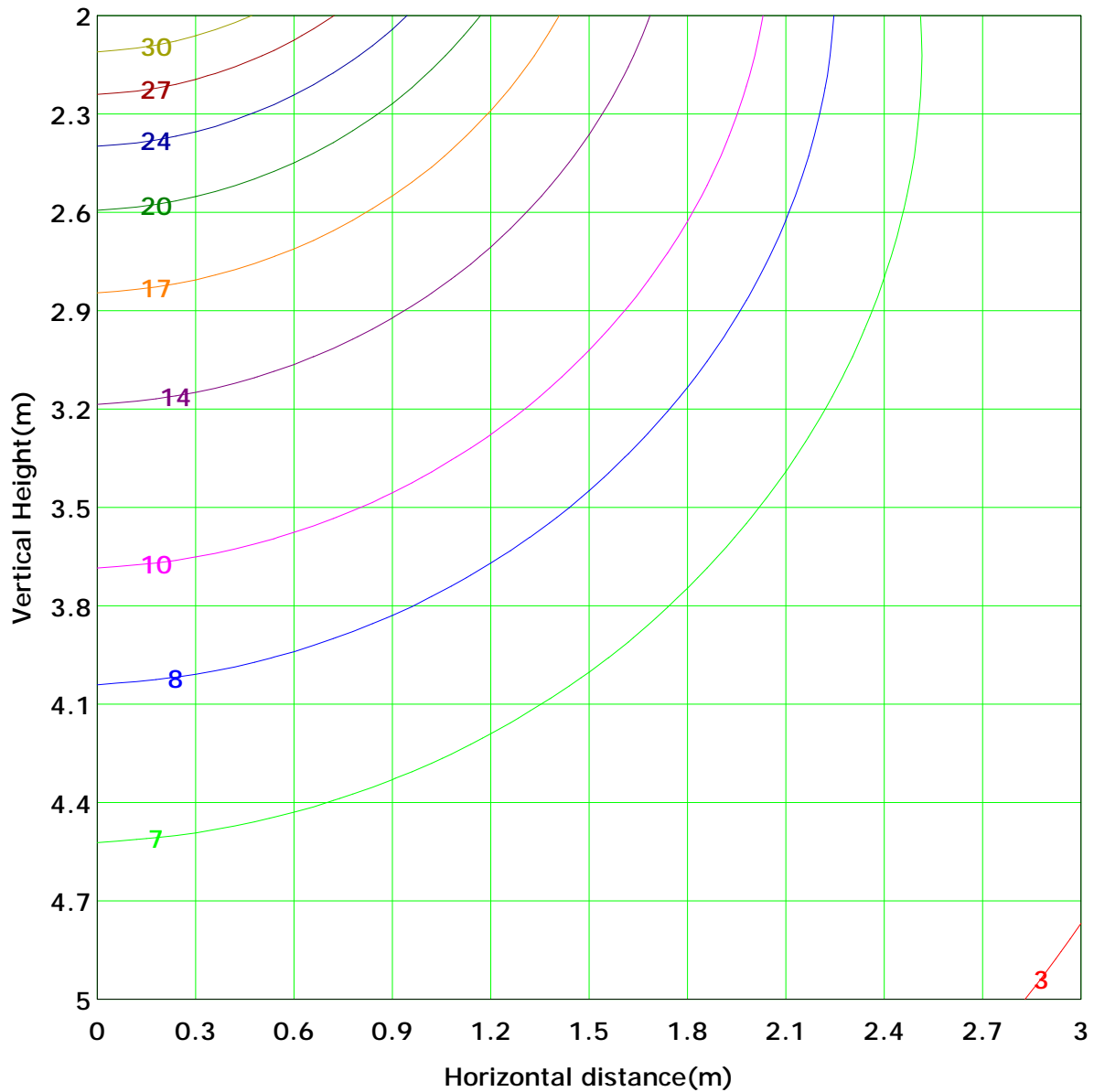
Humidity: 60%

Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 33.8 lx
(10%): 3.4 lx	(20%): 6.8 lx	
(25%): 8.4 lx	(30%): 10.1 lx	
(40%): 13.5 lx	(50%): 16.9 lx	
(60%): 20.3 lx	(70%): 23.6 lx	
(80%): 27.0 lx	(90%): 30.4 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

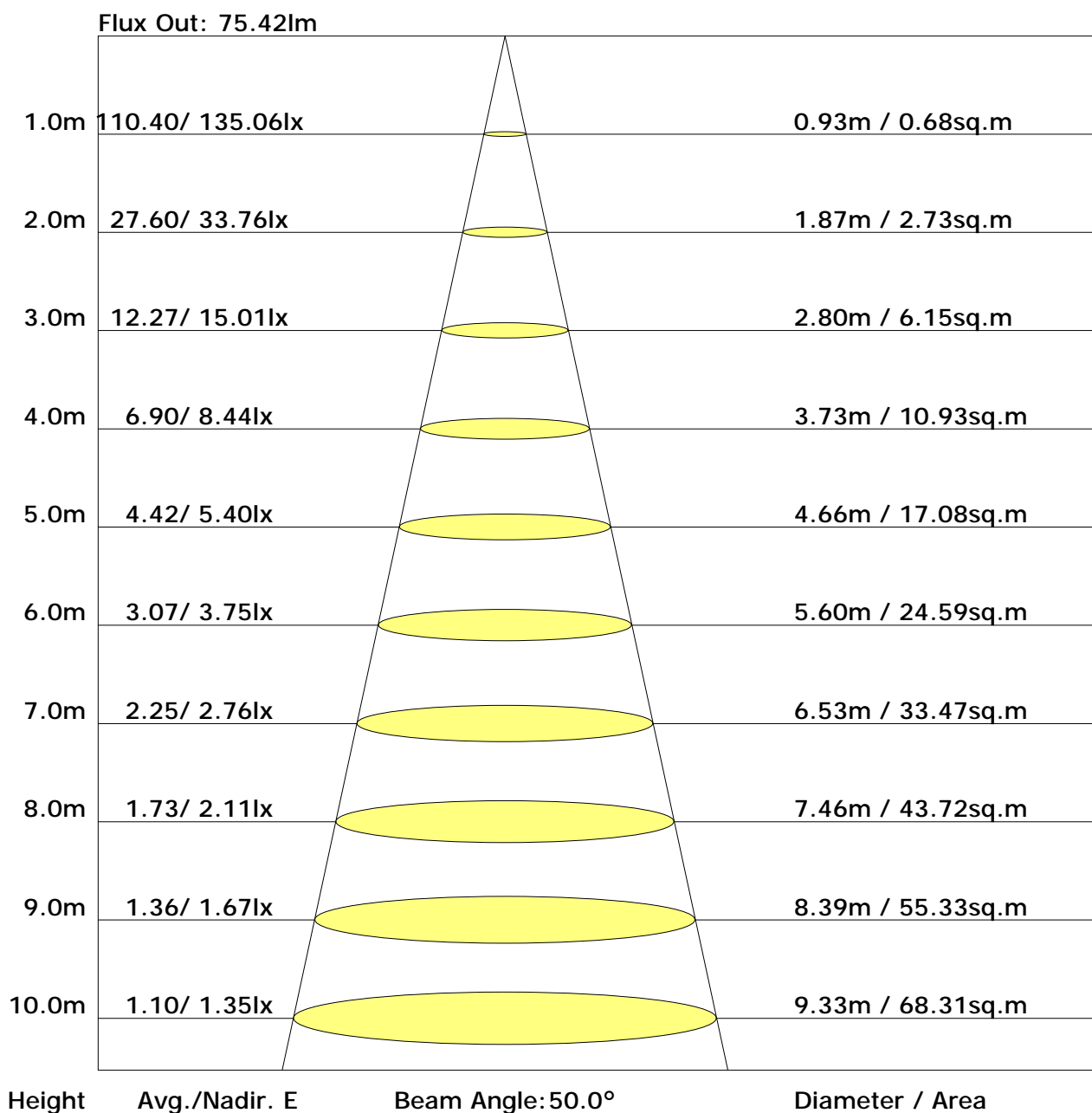
Unit: lm

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)
		0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.1	0.0	0.7	0.4
		0.0	0.1	0.2	0.4	0.5	0.7	0.8	0.8	0.8	0.8	0.7	0.5	0.3	0.3	0.3	0.3	0.3	0.1	0.0	3.6	3.4
		0.0	0.1	0.3	0.6	0.9	1.1	1.3	1.5	1.5	1.4	1.3	1.1	0.8	0.7	0.5	0.4	0.2	0.1	0.0	9.1	8.8
		0.0	0.2	0.4	0.8	1.2	1.6	1.9	2.1	2.1	2.0	1.9	1.7	1.5	1.3	1.2	1.0	0.8	0.2	0.0	16.3	16.0
		0.0	0.2	0.5	1.0	1.5	2.0	2.4	2.7	2.7	2.6	2.5	2.3	2.1	2.0	1.9	1.7	1.5	0.5	0.0	24.3	24.0
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	3.9	3.7	3.6	3.4	3.3	3.2	3.0	2.8	0.7	0.0	32.2	31.8
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	38.8	38.5
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.1	4.1	4.0	3.7	3.6	3.5	3.3	3.1	0.8	0.0	43.3	42.9
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.1	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	45.1	44.8
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	44.1	43.8
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	40.3	40.0
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	34.2	33.9
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	26.6	26.3
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	18.5	18.1
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	10.9	10.5
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	4.9	4.5
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	1.3	0.7
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	0.1	0.0
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	2.3	0.5
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	7.2	6.6
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	13.1	12.9
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	19.0	18.9
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	24.3	24.2
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	28.8	28.7
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	32.3	32.2
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	34.7	34.6
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	35.9	35.9
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	35.9	35.9
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	34.7	34.7
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	32.3	32.3
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	28.8	28.7
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	24.3	24.2
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	18.9	18.8
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	12.9	12.7
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	6.9	6.3
		0.0	0.3	0.8	1.4	2.1	2.8	3.3	3.8	3.9	4.0	4.0	3.9	3.7	3.6	3.5	3.3	3.1	0.8	0.0	2.1	0.4

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	27.7	26.4	28.0	28.3	26.8	28.4	27.1	28.7	29.1
3H	27.5	29.0	27.9	29.3	29.7	28.5	29.9	28.9	30.3	30.7
4H	27.9	29.3	28.3	29.6	30.0	29.1	30.5	29.5	30.8	31.2
6H	28.1	29.4	28.5	29.7	30.2	29.5	30.7	29.9	31.1	31.5
8H	28.1	29.3	28.5	29.7	30.1	29.6	30.8	30.0	31.2	31.6
12H	28.1	29.3	28.5	29.7	30.1	29.6	30.8	30.0	31.2	31.6
X=4H Y=2H	26.6	28.0	27.0	28.4	28.7	27.4	28.8	27.8	29.2	29.6
3H	28.2	29.4	28.6	29.8	30.2	29.3	30.5	29.7	30.9	31.3
4H	28.7	29.8	29.1	30.2	30.6	30.0	31.1	30.5	31.5	32.0
6H	29.0	29.9	29.4	30.3	30.8	30.5	31.5	31.0	31.9	32.4
8H	29.0	29.9	29.5	30.3	30.8	30.7	31.6	31.2	32.0	32.5
12H	29.0	29.8	29.5	30.3	30.7	30.8	31.6	31.3	32.0	32.5
X=8H Y=4H	28.9	29.8	29.4	30.2	30.7	30.4	31.2	30.8	31.7	32.2
6H	29.2	29.9	29.7	30.4	30.9	31.0	31.7	31.5	32.2	32.7
8H	29.3	29.9	29.8	30.4	30.9	31.2	31.8	31.7	32.3	32.8
12H	29.3	29.9	29.8	30.4	30.9	31.3	31.9	31.8	32.4	33.0
X=12H Y=4H	28.9	29.7	29.4	30.2	30.7	30.4	31.2	30.9	31.7	32.1
6H	29.2	29.9	29.8	30.4	30.9	31.1	31.7	31.6	32.2	32.7
8H	29.3	29.9	29.8	30.4	31.0	31.3	31.9	31.8	32.4	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	0.56	0.66	0.74	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	0.53	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
Rating:5W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											

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	0.83	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	0.59	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		0.71	0.61	0.54	0.48	0.40	0.34	0.30	0.23	0.20
0.30	0.50	0.20	0.94	0.77	0.65	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	0.22	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	0.12	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	0.17	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
<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>											