

Report No.: 01

Test Time: 2017/2/14 09:09

Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RB241.541PH

Luminous Length (mm): 500

Luminous Height (mm): 1

Current: 0.099 A

Power Factor: 1.000

Luminaire Description: RB241.541PH

Luminous Width (mm): 8

Voltage: 24.0 V

Power: 2.39 W

Photometric Results

CIE Class: Direct

Measurement Flux: 222.9 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H115.4

Vertical Diffuse Angle(50%): V115.4

Luminaire Efficacy Rating (LER): 93

Max. Intensity: 74.96 cd

Total Rated Lamp Lumens: 222.9 lm

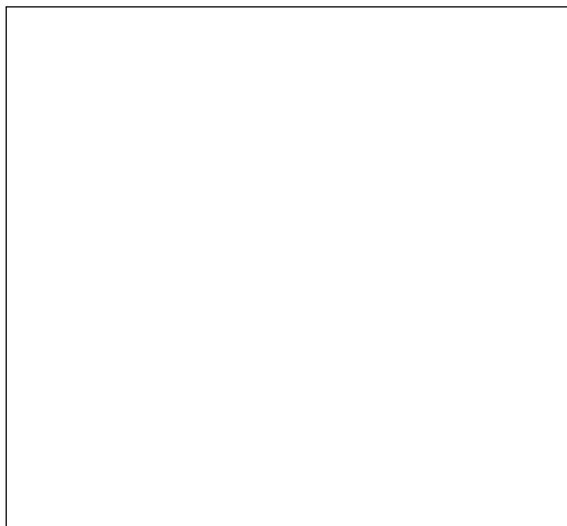
Efficiency: 100%

Upward Ratio: 1%

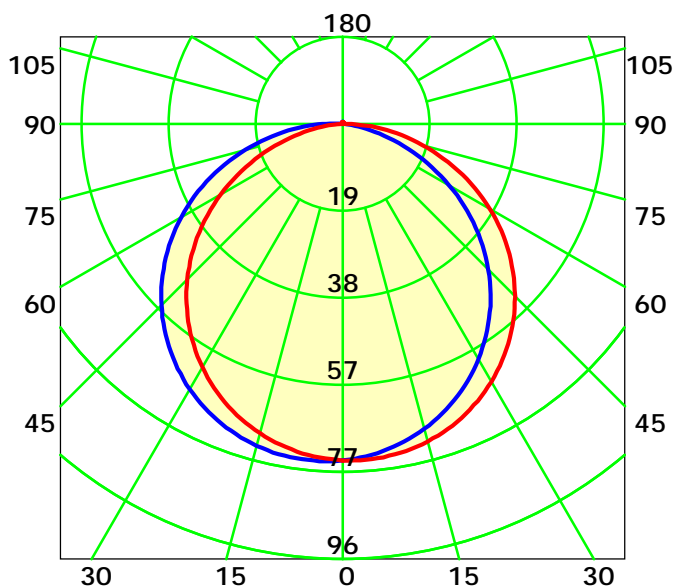
Central Intensity: 74.52 cd

Pos of Max. Intensity: H150 V7

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

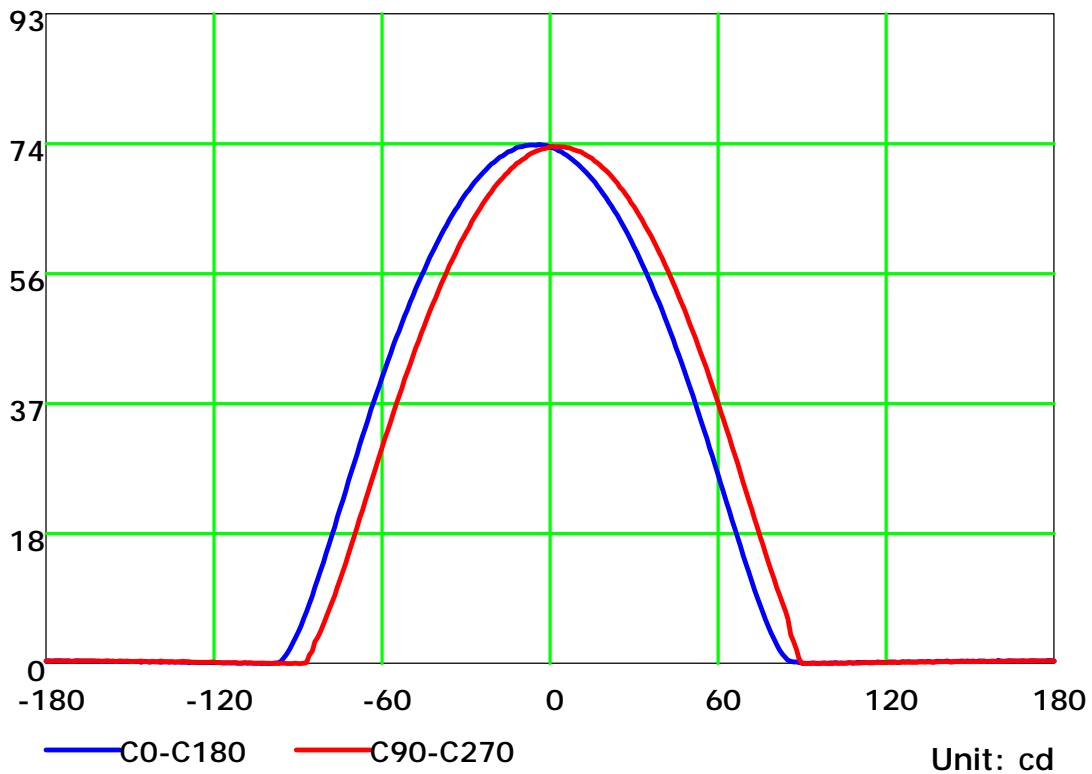
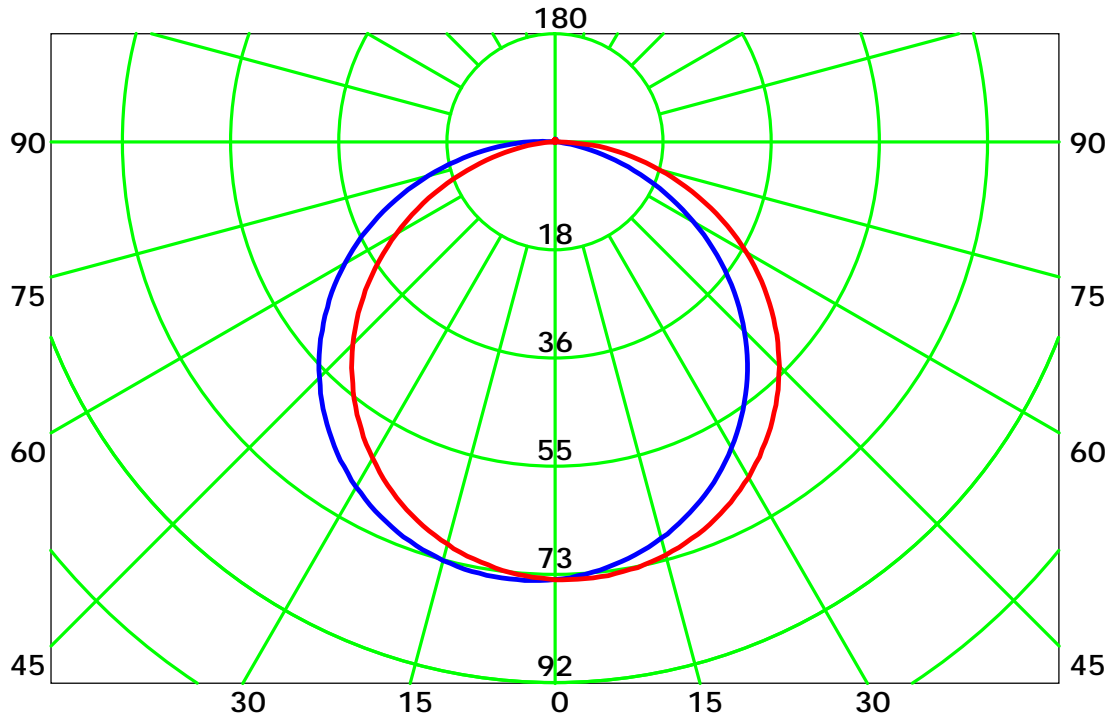
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

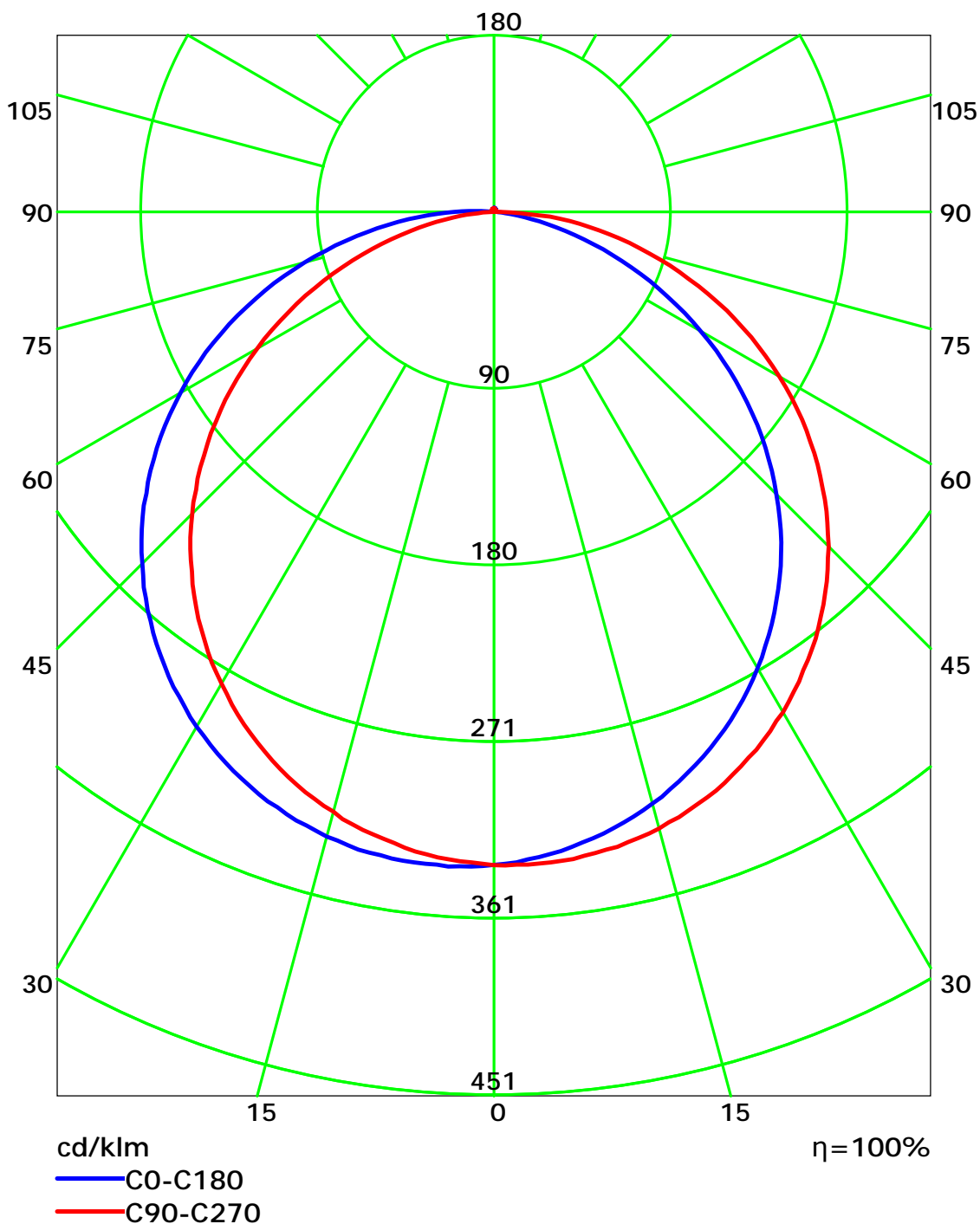
Luminous Intensity Distribution Curve



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:

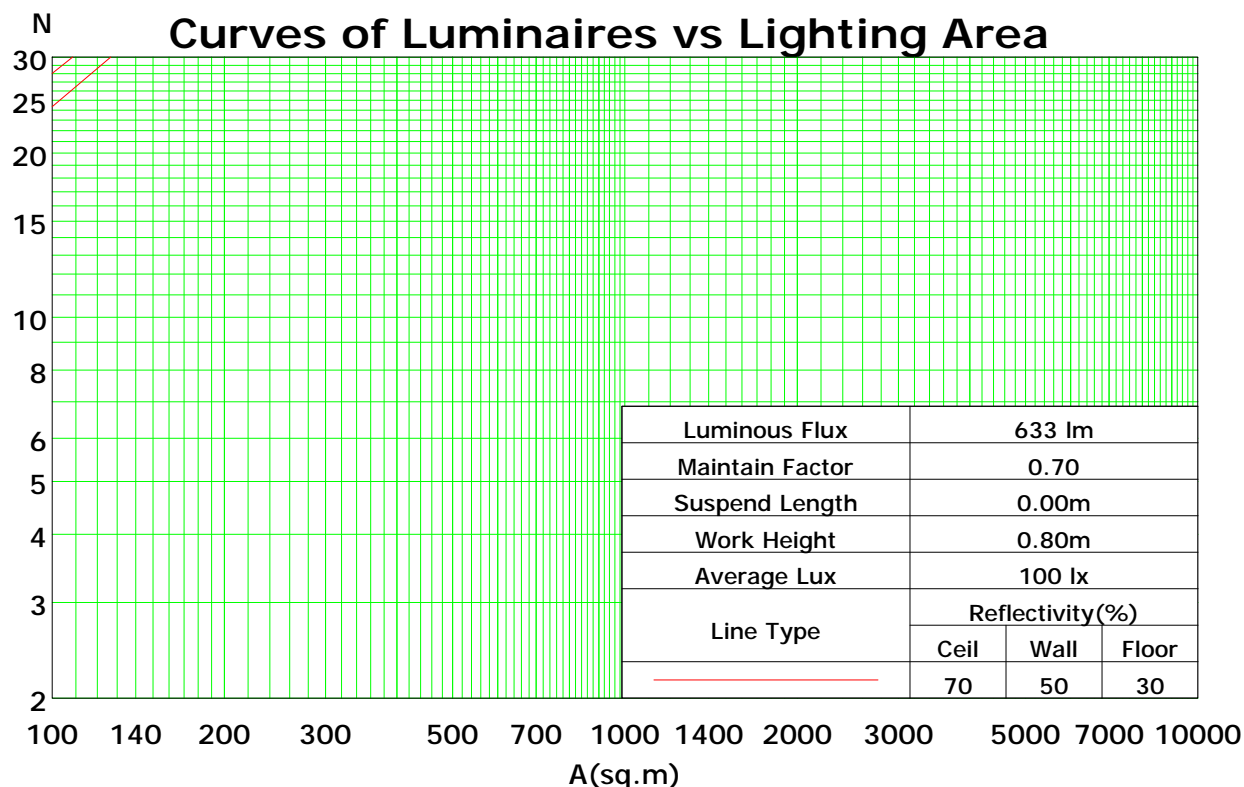
Coefficients Of Utilization - Zonal Cavity Method

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): 1.27

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

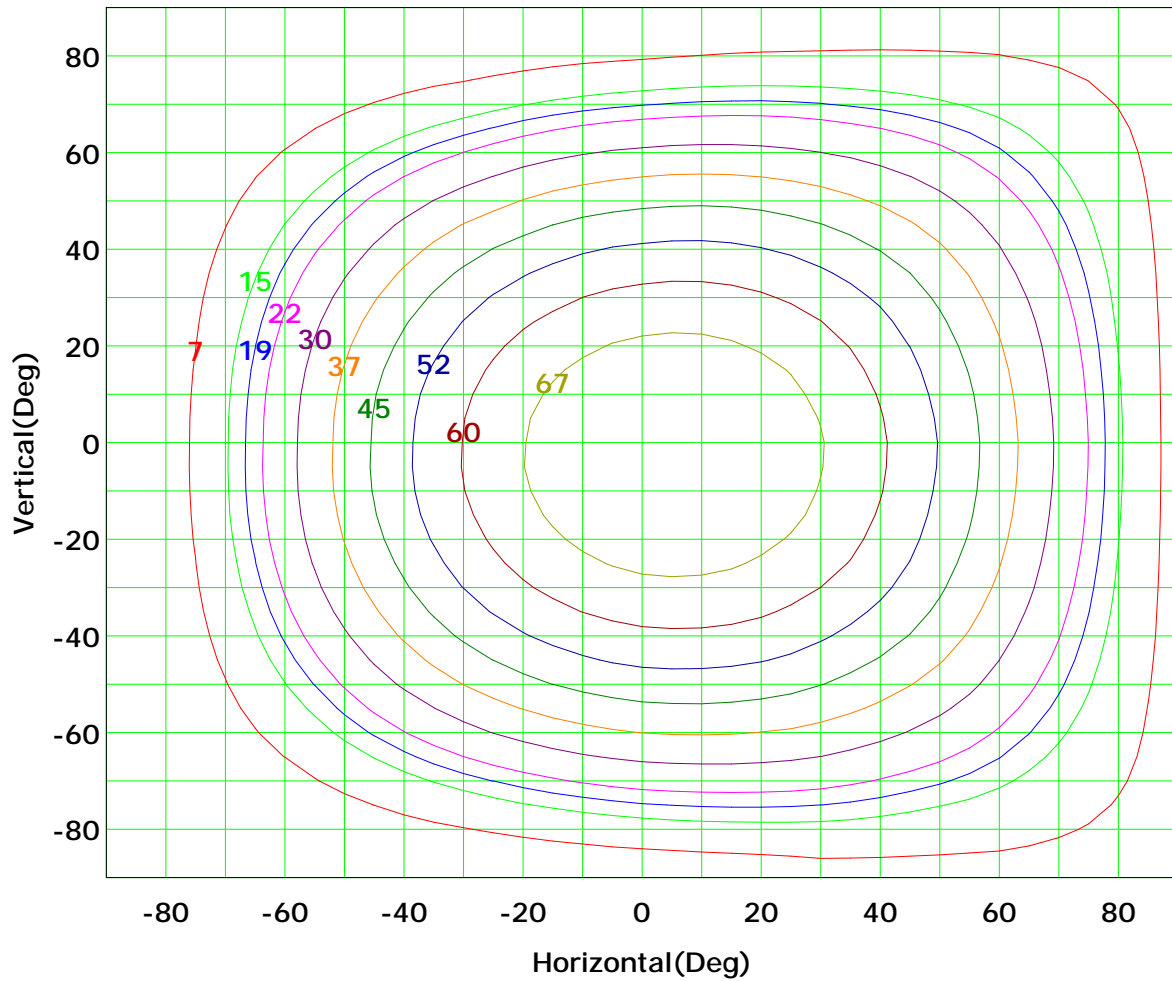
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Isocandela (rectangle)



I_{max} (100%): 75 cd

(10%):	7 cd	(20%):	15 cd
(25%):	19 cd	(30%):	22 cd
(40%):	30 cd	(50%):	37 cd
(60%):	45 cd	(70%):	52 cd
(80%):	60 cd	(90%):	67 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

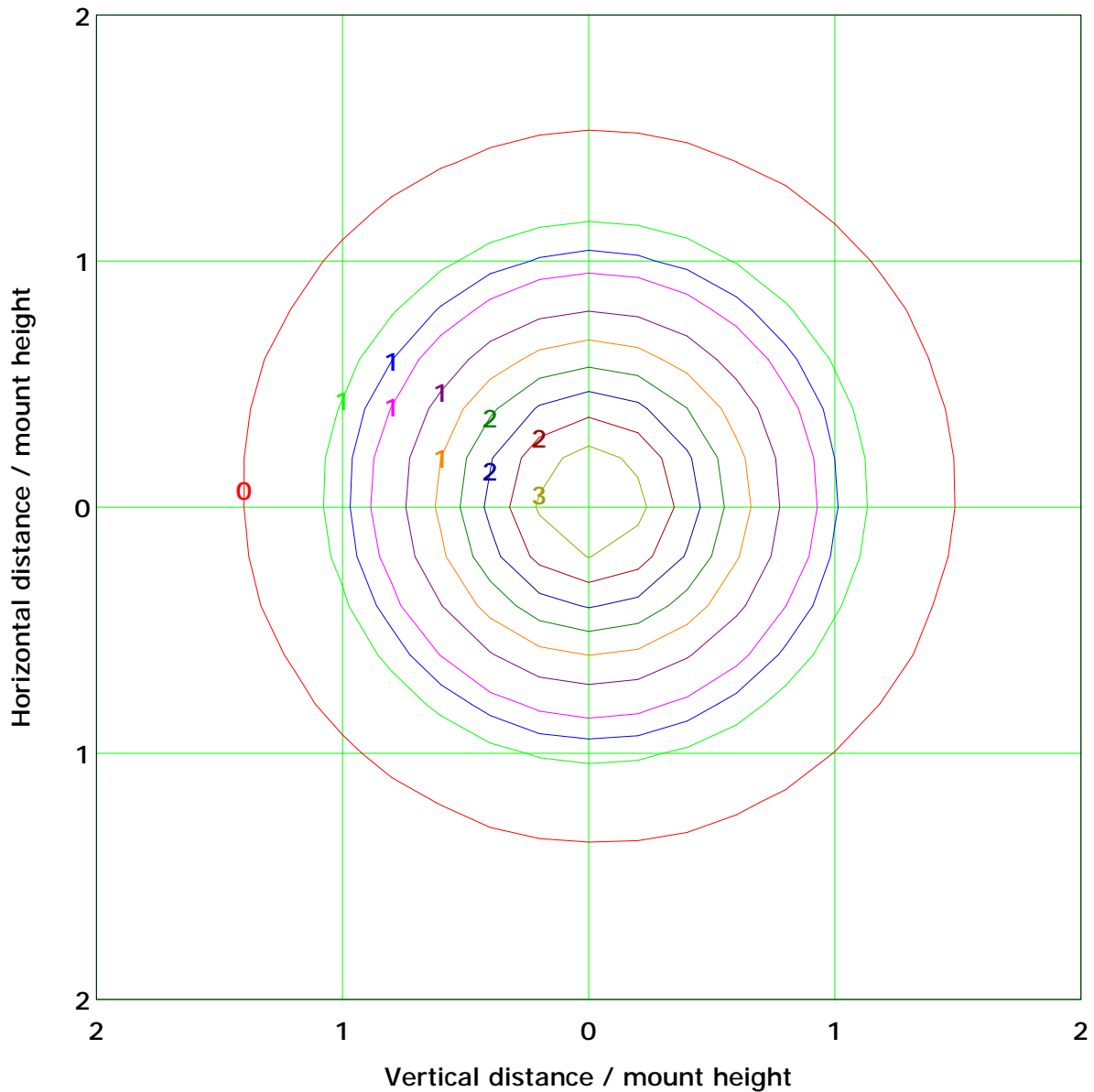
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 3.0 lx

(10%): 0.3 lx	(20%): 0.6 lx
(25%): 0.7 lx	(30%): 0.9 lx
(40%): 1.2 lx	(50%): 1.5 lx
(60%): 1.8 lx	(70%): 2.1 lx
(80%): 2.4 lx	(90%): 2.7 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

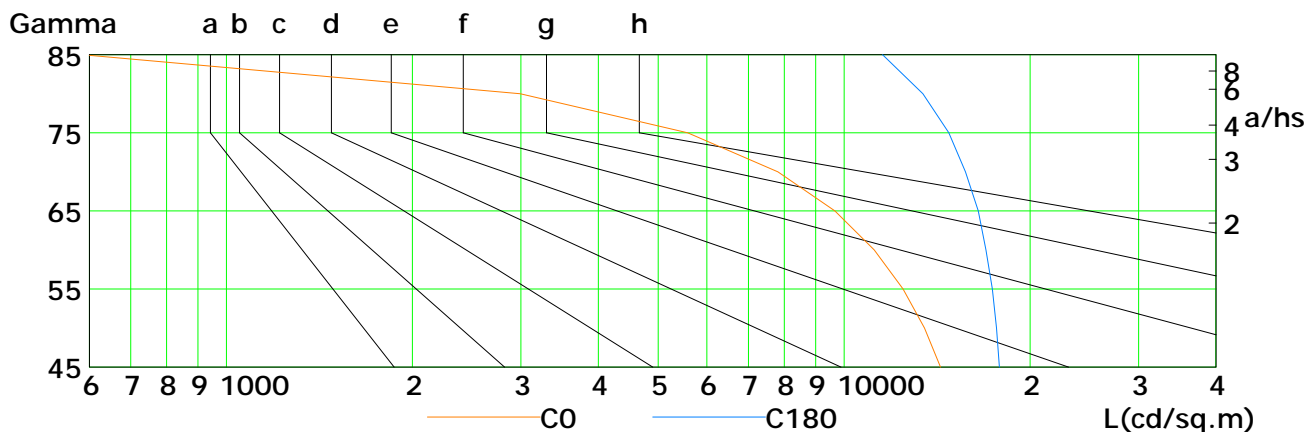
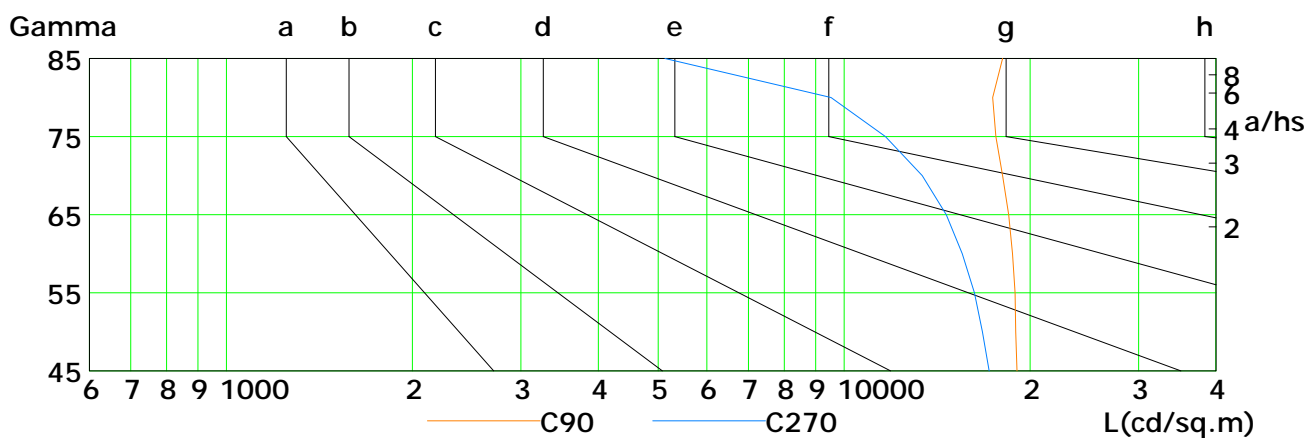
Humidity: 60%

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	14324	13493	12460	11188	9671	7819	5585	2991	591
C90	19064	18974	18919	18730	18478	18065	17613	17396	18060
C180	17841	17656	17379	16967	16491	15730	14774	13412	11550
C270	17187	16754	16268	15541	14643	13383	11668	9524	5132

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

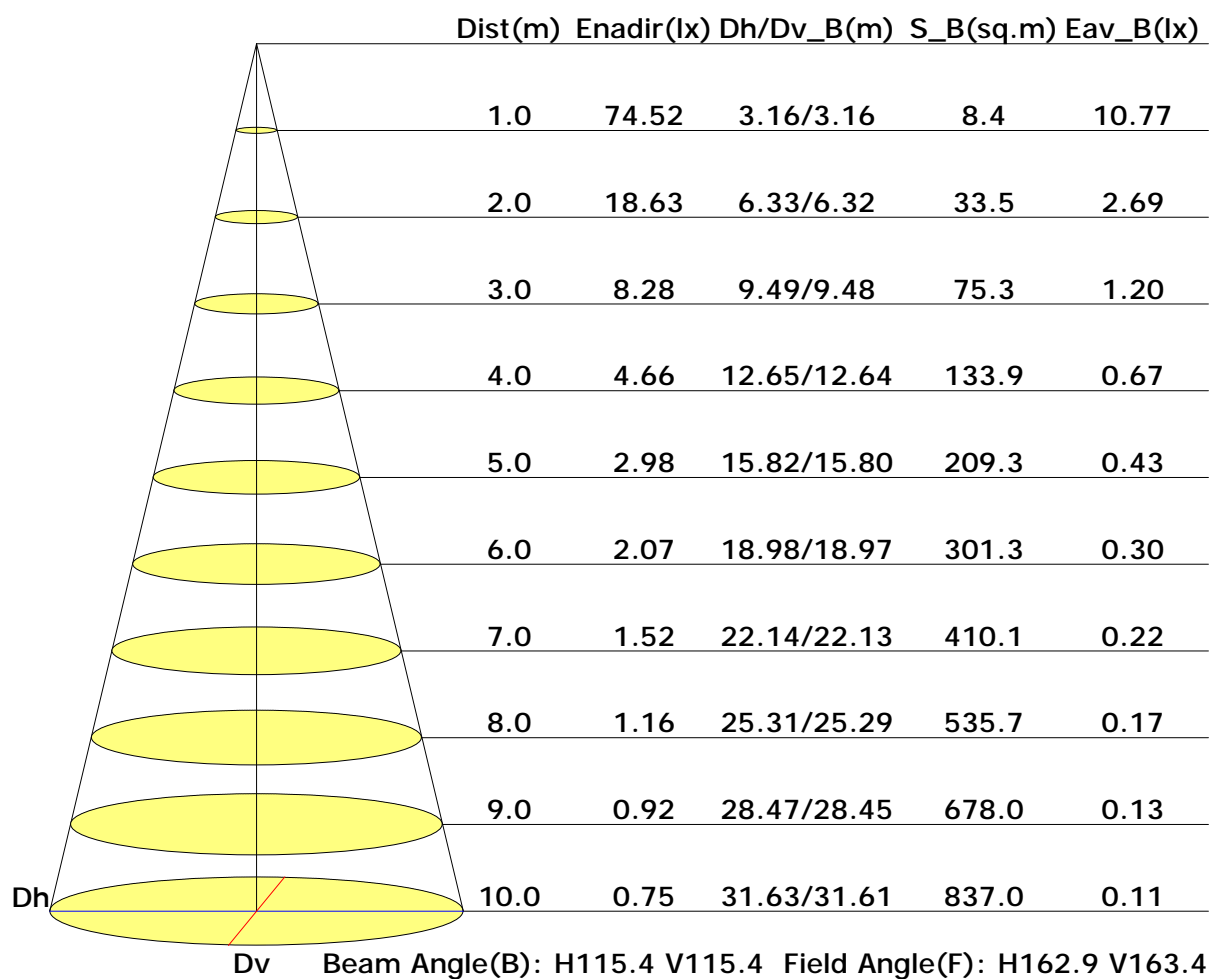
Test Device: GPM-1800B

Distance: 9.028 m

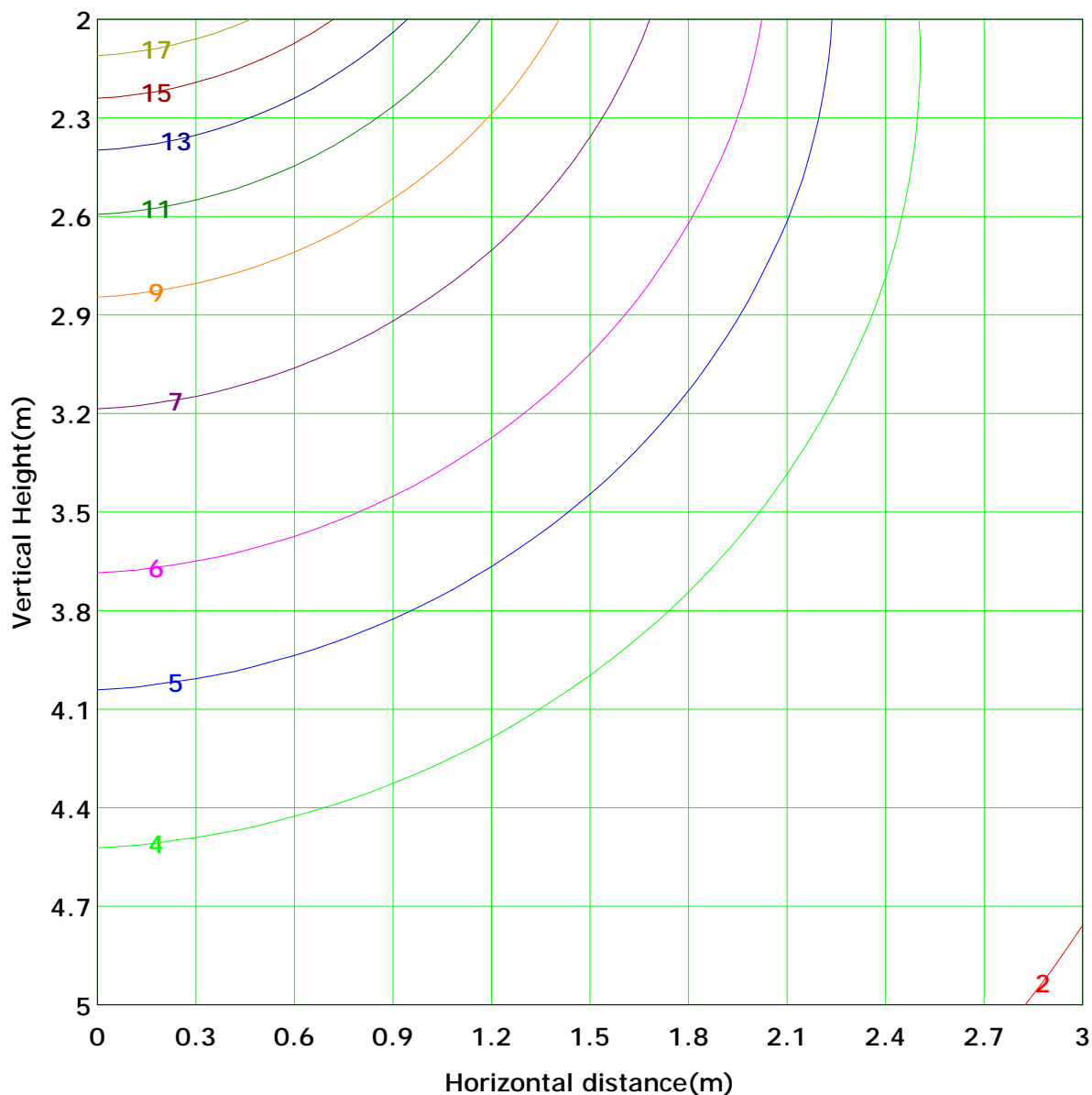
Humidity: 60%

Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 18.6 lx
(10%): 1.9 lx	(20%): 3.7 lx	
(25%): 4.7 lx	(30%): 5.6 lx	
(40%): 7.5 lx	(50%): 9.3 lx	
(60%): 11.2 lx	(70%): 13.0 lx	
(80%): 14.9 lx	(90%): 16.8 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

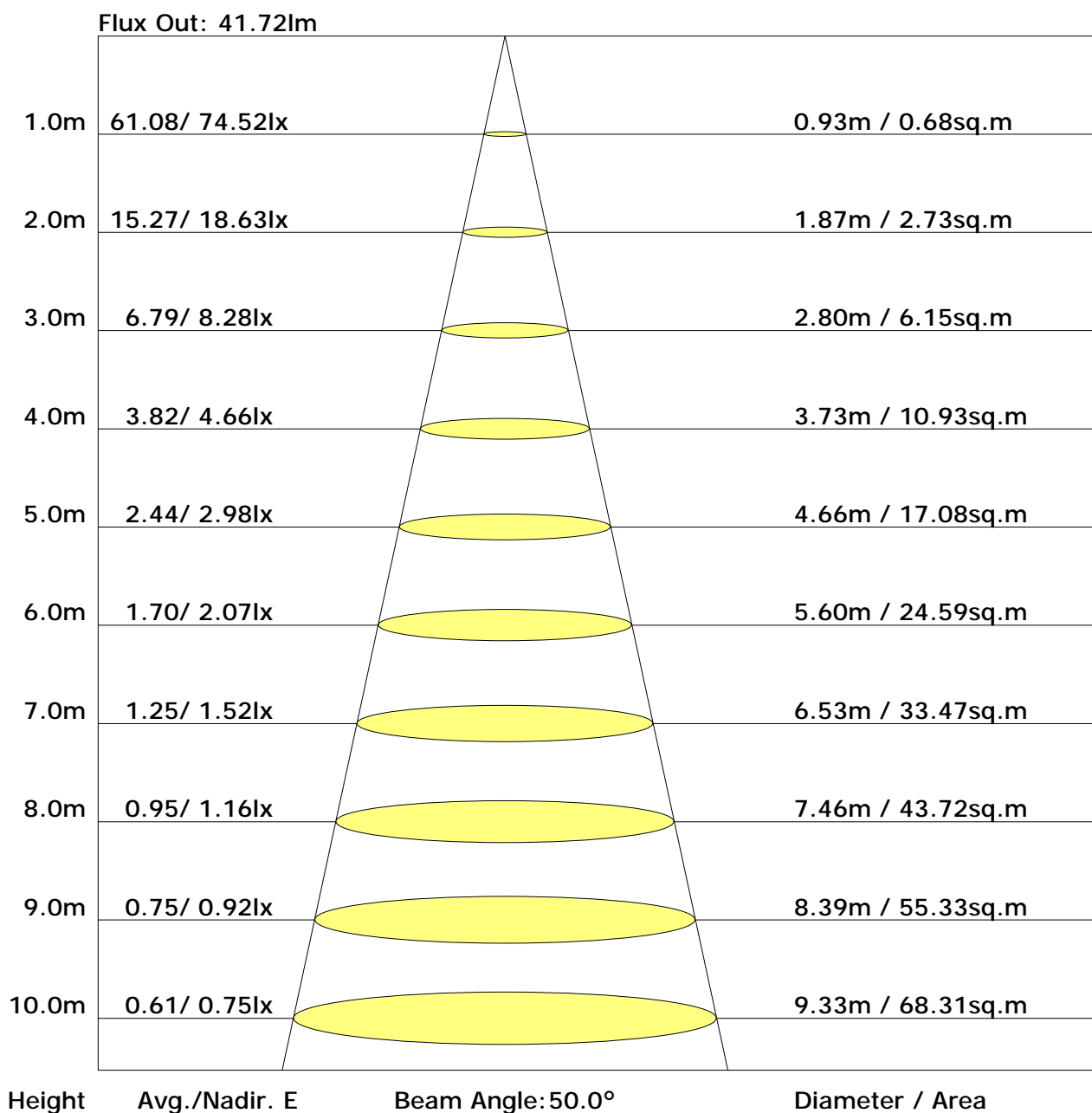
Unit: lm

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	0.0	0.1	0.1	0.1	0.1	0.1	0.1	1.2	1.6	1.9	2.1	2.2	2.0	1.6	1.3	1.0	0.7	0.4	0.4	0.3
	-80	0.0	0.1	0.1	0.2	0.3	0.5	0.6	0.8	1.2	1.6	1.9	2.2	2.3	2.2	1.9	1.7	1.5	1.2	0.9	0.7	0.6
	-70	0.0	0.1	0.2	0.3	0.5	0.6	0.8	1.2	1.6	1.9	2.2	2.3	2.2	2.0	1.7	1.5	1.2	0.9	0.7	0.5	0.4
	-60	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.4	1.7	1.9	2.1	2.2	2.0	1.8	1.6	1.4	1.1	0.9	0.7	0.5	0.4
	-50	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.4	1.7	1.9	2.1	2.2	2.0	1.8	1.6	1.4	1.1	0.9	0.7	0.5	0.4
	-40	0.0	0.1	0.3	0.6	0.8	1.1	1.3	1.5	1.8	2.1	2.2	2.1	2.0	1.9	1.7	1.5	1.3	1.1	0.9	0.7	0.6
	-30	0.0	0.1	0.4	0.6	1.0	1.3	1.5	1.7	1.9	2.0	2.1	2.0	1.9	1.8	1.6	1.4	1.1	0.9	0.7	0.5	0.4
	-20	0.0	0.2	0.4	0.7	1.1	1.4	1.7	1.9	2.1	2.2	2.2	2.1	2.0	1.9	1.7	1.5	1.2	1.0	0.8	0.6	0.5
	-10	0.0	0.2	0.4	0.8	1.2	1.5	1.8	2.1	2.2	2.2	2.2	2.1	2.0	1.9	1.7	1.5	1.2	1.0	0.8	0.6	0.5
	0	0.0	0.2	0.5	0.8	1.2	1.6	1.9	2.1	2.2	2.2	2.2	2.1	2.0	1.9	1.7	1.5	1.2	1.0	0.8	0.6	0.5
	10	0.0	0.2	0.5	0.8	1.2	1.6	1.9	2.2	2.3	2.2	2.1	2.0	1.9	1.7	1.5	1.2	1.0	0.8	0.6	0.5	0.4
	20	0.0	0.2	0.4	0.8	1.2	1.6	1.9	2.1	2.2	2.2	2.2	2.1	2.0	1.9	1.7	1.5	1.2	1.0	0.8	0.6	0.5
	30	0.0	0.2	0.4	0.8	1.1	1.5	1.8	2.0	2.1	2.0	1.9	1.7	1.6	1.5	1.3	1.1	0.9	0.7	0.5	0.4	0.3
	40	0.0	0.2	0.4	0.7	1.0	1.3	1.6	1.8	1.9	1.9	1.7	1.7	1.6	1.5	1.3	1.1	0.9	0.7	0.5	0.4	0.3
	50	0.0	0.1	0.3	0.6	0.9	1.2	1.4	1.6	1.6	1.6	1.5	1.5	1.4	1.3	1.1	0.9	0.7	0.5	0.4	0.3	0.2
	60	0.0	0.1	0.3	0.5	0.7	1.0	1.2	1.3	1.3	1.3	1.2	1.2	1.1	1.0	0.9	0.7	0.5	0.4	0.3	0.2	0.1
	70	0.0	0.1	0.2	0.4	0.5	0.7	0.9	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0
	80	0.0	0.1	0.1	0.2	0.4	0.5	0.5	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.0	0.0	0.0
	90	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
	Flux(T)	0.4	2.2	5.3	9.5	14.0	18.3	21.9	24.3	25.2	24.6	22.4	19.0	14.7	10.2	5.9	2.6	0.7	0.0	0.0	221	
	Flux(E)	0.3	2.1	5.2	9.3	13.8	18.1	21.7	24.1	25.0	24.4	22.2	18.8	14.5	10.0	5.7	2.4	0.4	0.0	0.0		218

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	25.8	27.5	26.2	27.8	28.1	27.2	28.9	27.6	29.2	29.5
3H	27.2	28.7	27.6	29.1	29.4	29.1	30.6	29.5	30.9	31.3
4H	27.6	29.0	28.0	29.4	29.8	29.8	31.2	30.2	31.5	31.9
6H	27.8	29.1	28.2	29.5	29.9	30.3	31.6	30.7	32.0	32.4
8H	27.8	29.0	28.2	29.4	29.9	30.5	31.7	30.9	32.1	32.5
12H	27.8	29.0	28.2	29.4	29.8	30.6	31.8	31.0	32.2	32.6
X=4H Y=2H	26.4	27.8	26.8	28.2	28.6	27.9	29.3	28.3	29.7	30.1
3H	28.0	29.2	28.4	29.6	30.0	30.0	31.2	30.4	31.6	32.0
4H	28.4	29.5	28.9	29.9	30.4	30.8	31.9	31.2	32.3	32.7
6H	28.7	29.6	29.2	30.1	30.6	31.5	32.4	31.9	32.8	33.3
8H	28.7	29.6	29.2	30.0	30.5	31.7	32.6	32.2	33.0	33.5
12H	28.7	29.5	29.2	30.0	30.5	31.9	32.6	32.3	33.1	33.6
X=8H Y=4H	28.7	29.6	29.2	30.0	30.5	31.2	32.0	31.6	32.5	33.0
6H	29.0	29.7	29.5	30.2	30.7	31.9	32.7	32.4	33.2	33.7
8H	29.0	29.7	29.5	30.2	30.7	32.2	32.9	32.8	33.4	33.9
12H	29.0	29.6	29.5	30.1	30.7	32.5	33.1	33.0	33.6	34.2
X=12H Y=4H	28.7	29.5	29.2	30.0	30.5	31.2	32.0	31.7	32.5	33.0
6H	29.0	29.7	29.5	30.1	30.7	32.0	32.7	32.6	33.2	33.7
8H	29.1	29.6	29.6	30.1	30.7	32.4	33.0	32.9	33.5	34.1

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	0.89	0.95	0.99
	0.20		0.42	0.52	0.60	0.66	0.74	0.80	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: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	0.62	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	0.78	0.66	0.57	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	0.53	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: 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	0.22	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: 2W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											