

Report No.: 01

Test Time: 2017/2/5 15:28

Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RBMT243.041PH

Luminous Length (mm): 500mm

Luminous Height (mm): 1mm

Current: 0.205 A

Power Factor: 1.000

Luminaire Description: RBMT243.041PH

Luminous Width (mm): 12mm

Voltage: 24.0 V

Power: 4.92 W

Photometric Results

CIE Class: Direct

Measurement Flux: 417.7 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H116.6

Vertical Diffuse Angle(50%): V116.9

Luminaire Efficacy Rating (LER): 85

Max. Intensity: 139.08 cd

Total Rated Lamp Lumens: 417.7 lm

Efficiency: 100%

Upward Ratio: 1%

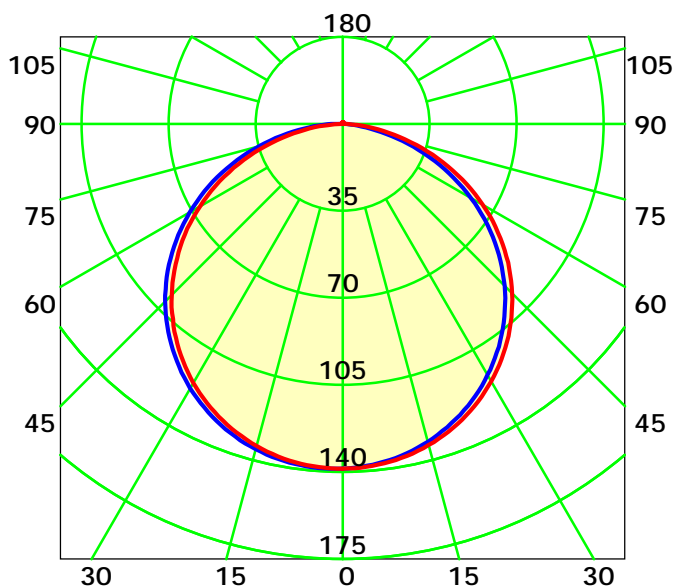
Central Intensity: 138.89 cd

Pos of Max. Intensity: H240 V2

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 116.7° 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

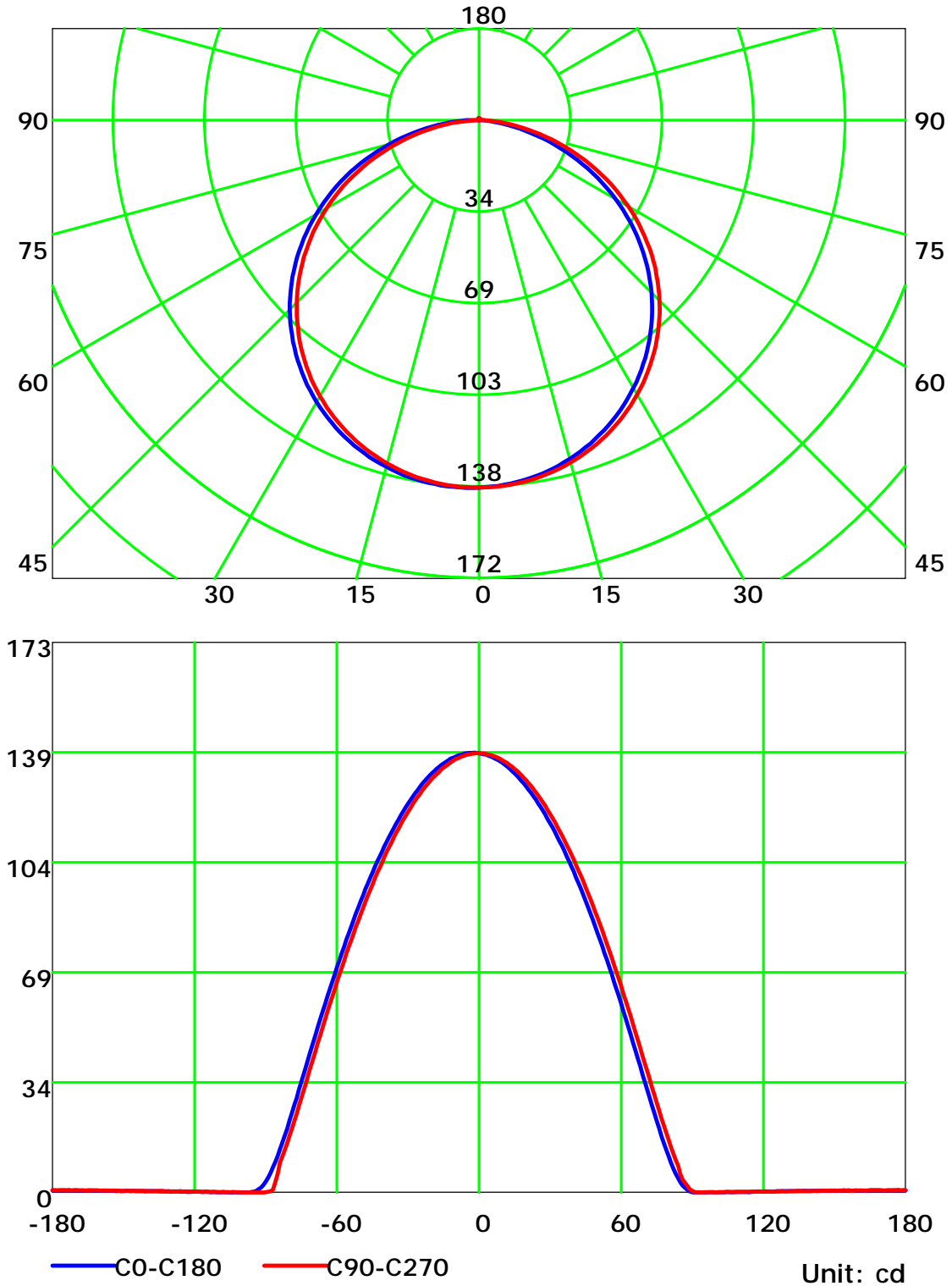
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

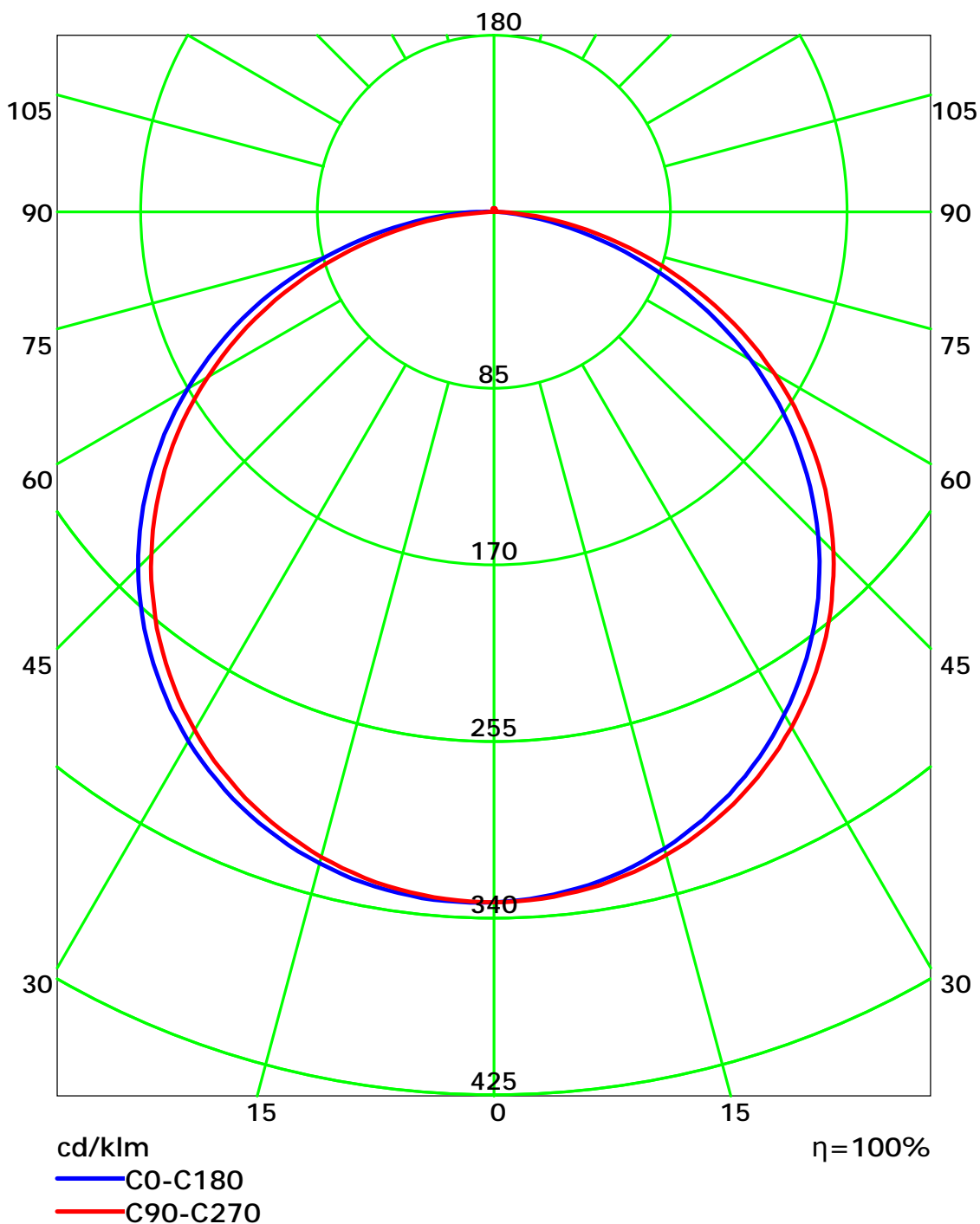
Luminous Intensity Distribution Curve



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:

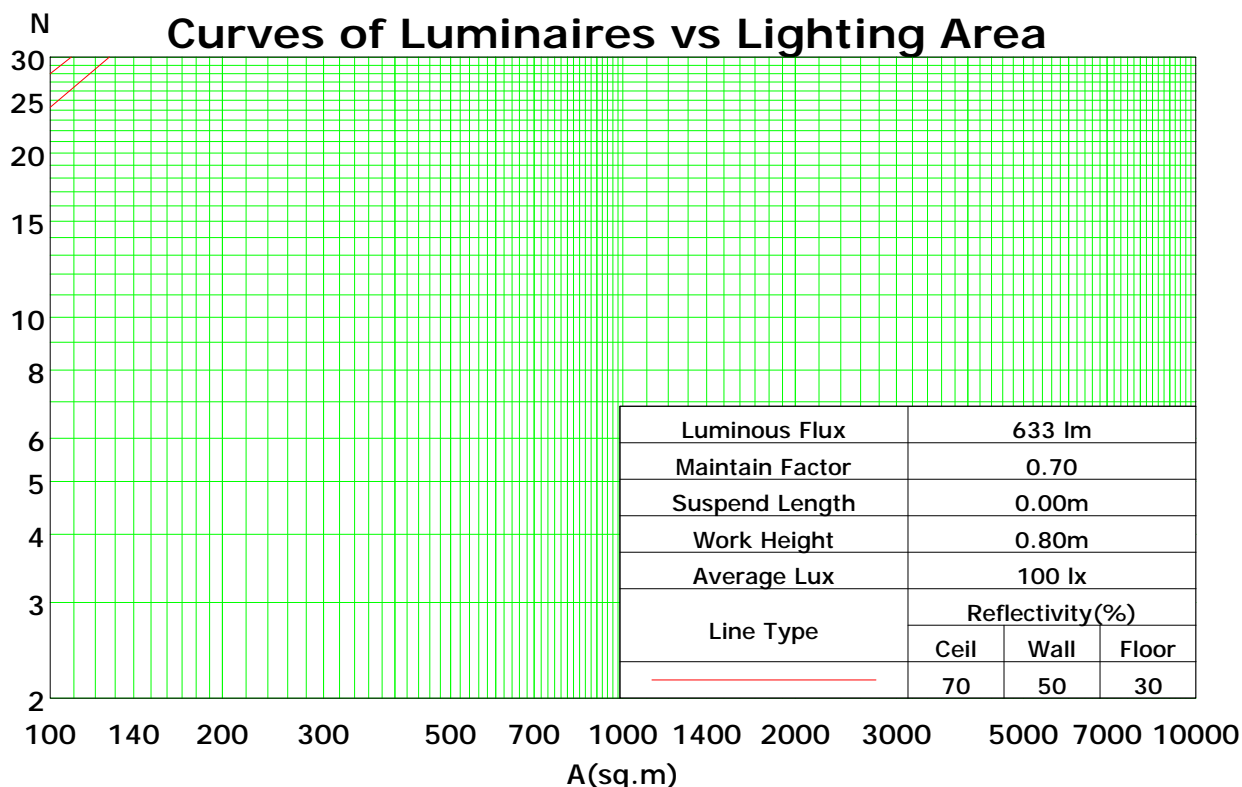
Coefficients Of Utilization - Zonal Cavity Method

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	106	101	97	94	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	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	60	57
4	82	70	61	54	79	68	60	53	66	58	53	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	25	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

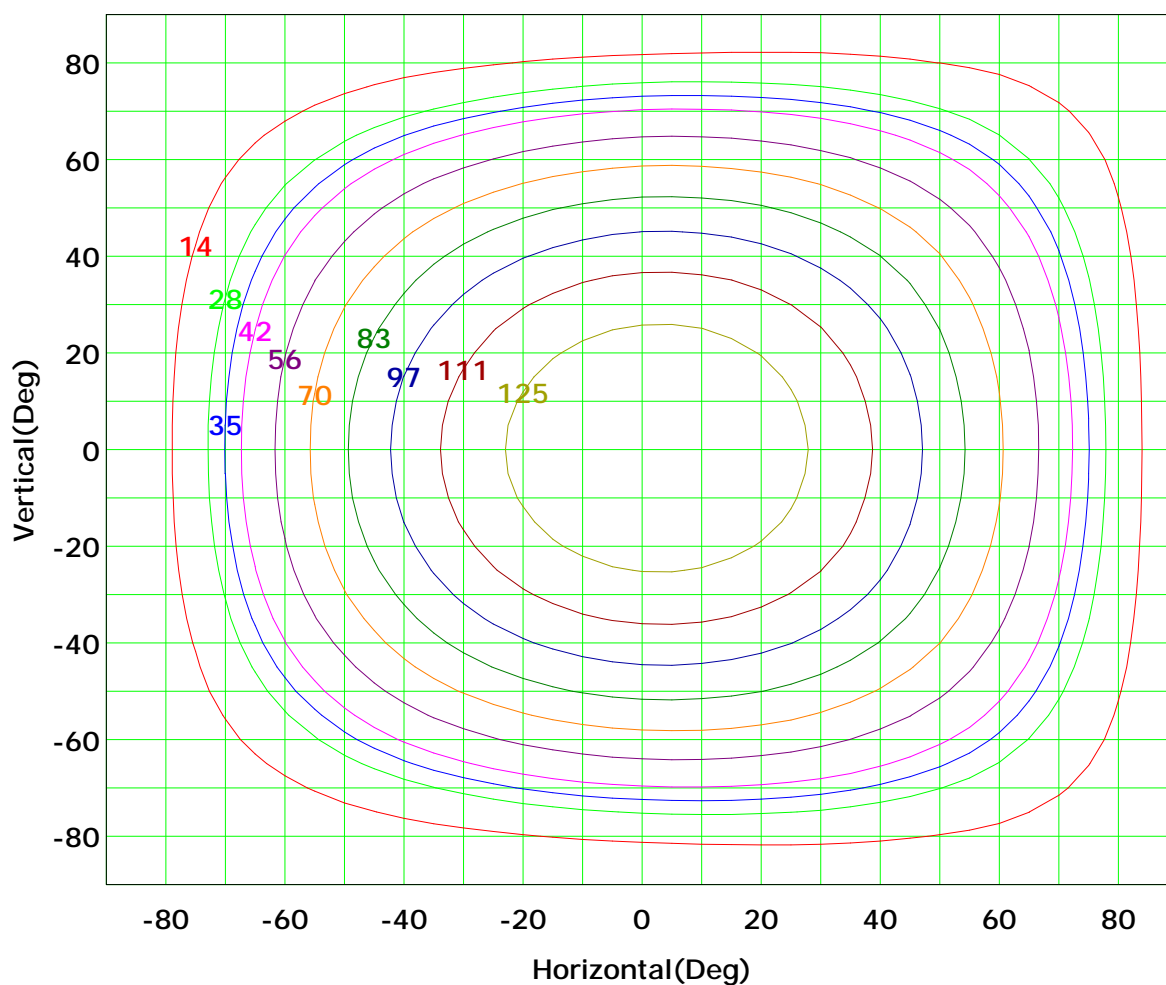
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Isocandela (rectangle)



I_{max} (100%): 139 cd

(10%):	14 cd	(20%):	28 cd
(25%):	35 cd	(30%):	42 cd
(40%):	56 cd	(50%):	70 cd
(60%):	83 cd	(70%):	97 cd
(80%):	111 cd	(90%):	125 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

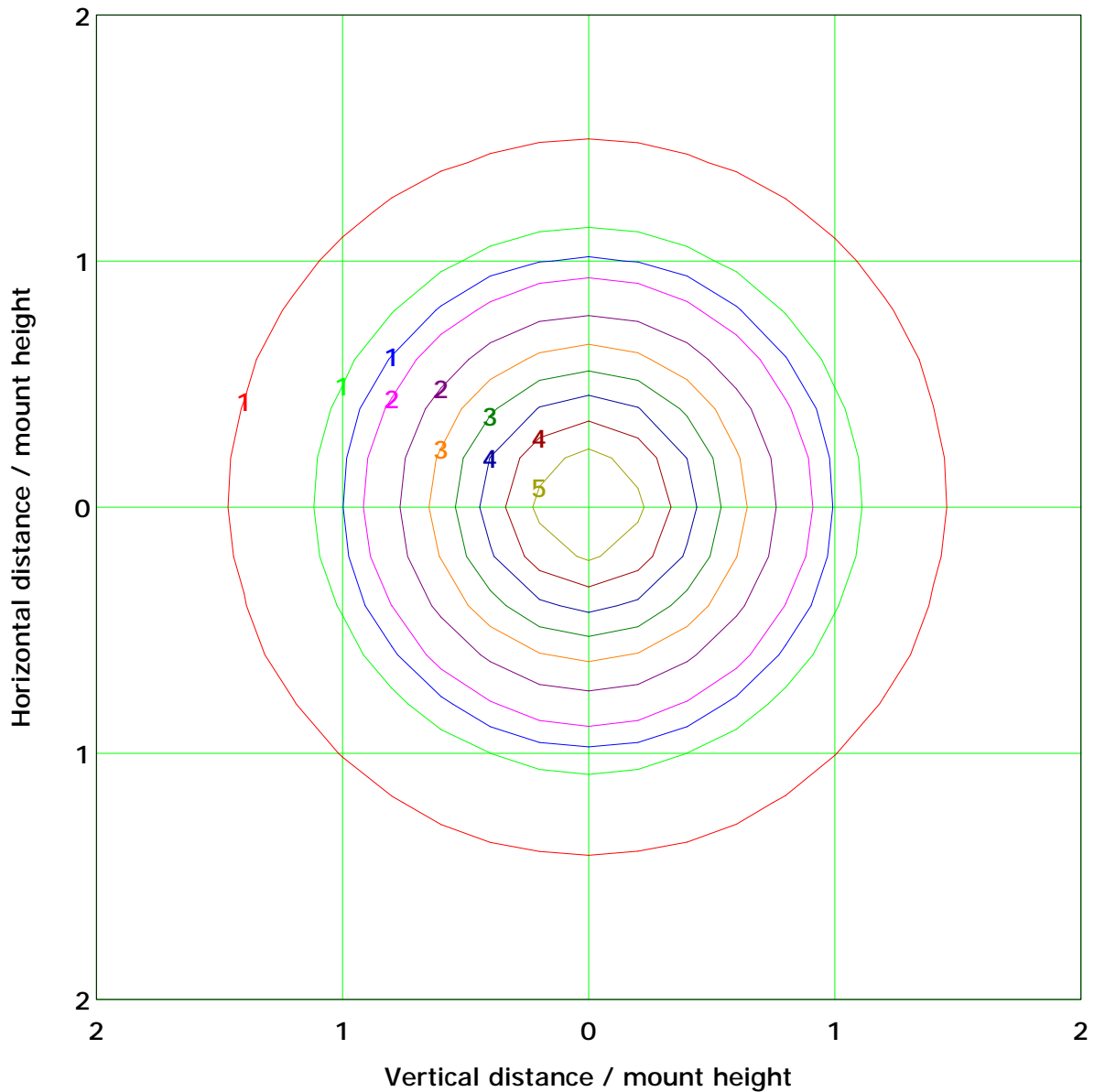
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 5.6 lx

(10%): 0.6 lx	(20%): 1.1 lx
(25%): 1.4 lx	(30%): 1.7 lx
(40%): 2.2 lx	(50%): 2.8 lx
(60%): 3.3 lx	(70%): 3.9 lx
(80%): 4.4 lx	(90%): 5.0 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

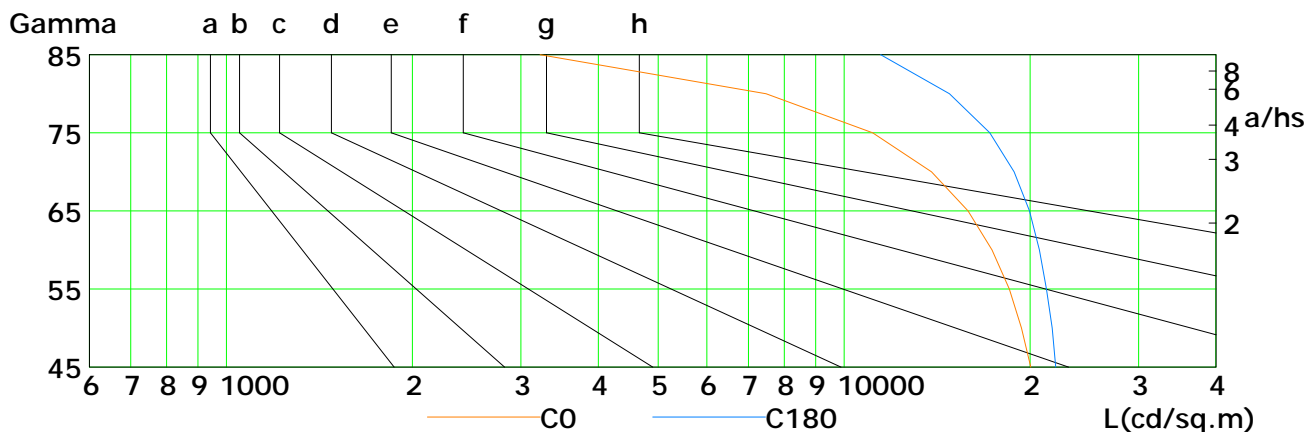
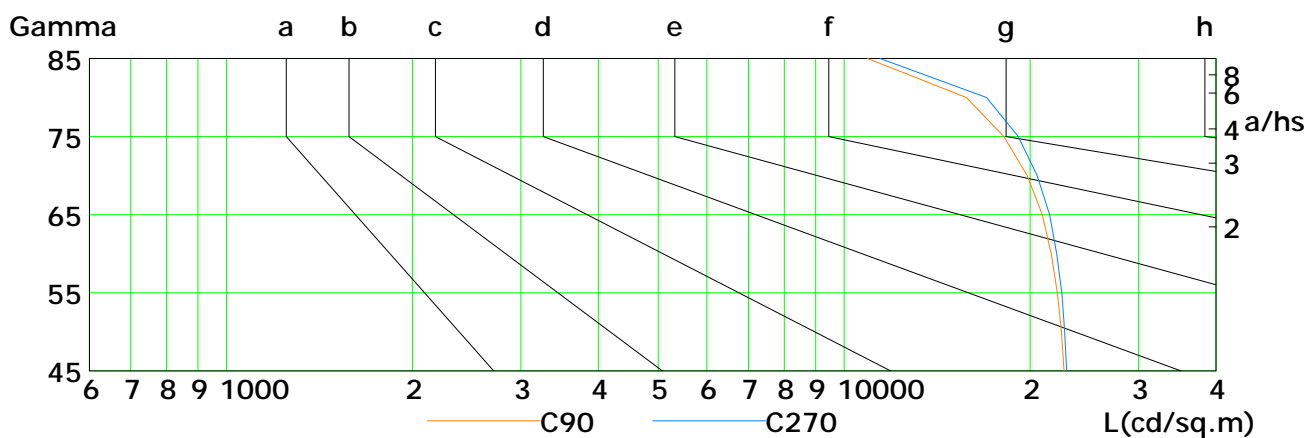
Humidity: 60%

Inspector:

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	20069	19369	18509	17372	15882	13858	11125	7482	3222
C90	22709	22502	22134	21648	20934	19793	18153	15782	10918
C180	22020	21723	21277	20722	19954	18854	17216	14808	11469
C270	22916	22755	22513	22090	21531	20549	19150	17007	11442

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

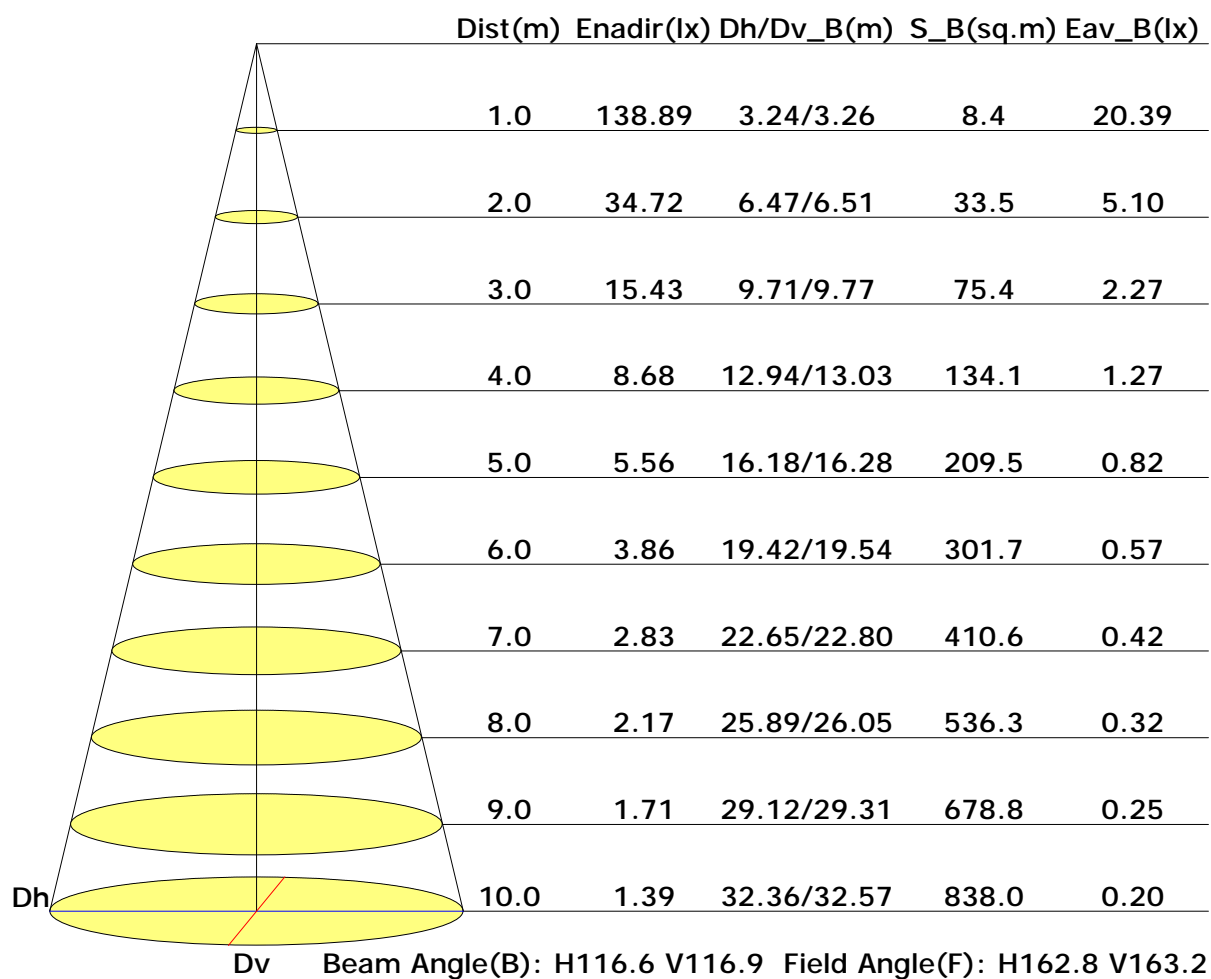
Test Device: GPM-1800B

Distance: 9.028 m

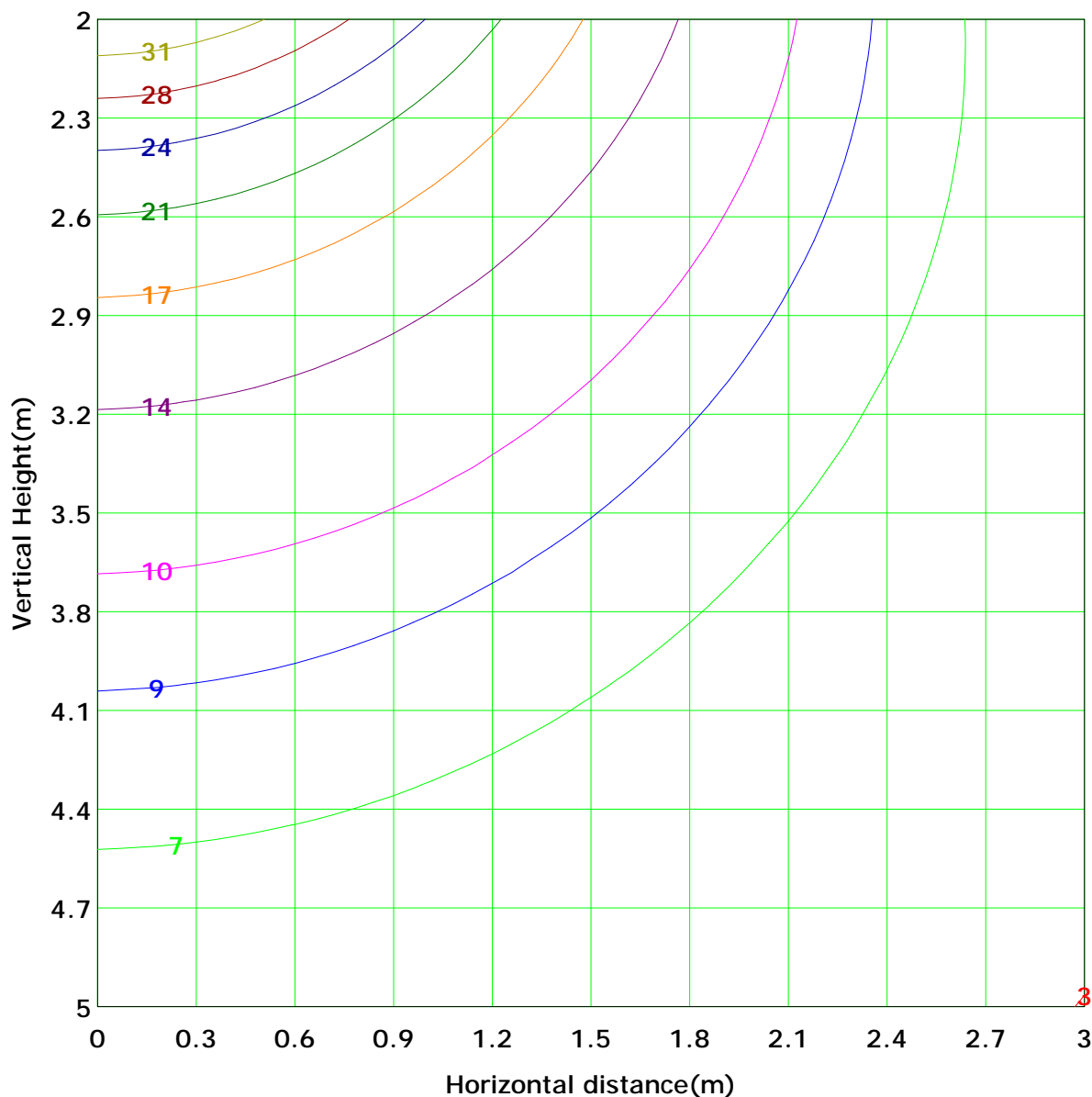
Humidity: 60%

Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 34.7 lx
(10%): 3.5 lx	(20%): 6.9 lx	
(25%): 8.7 lx	(30%): 10.4 lx	
(40%): 13.9 lx	(50%): 17.4 lx	
(60%): 20.8 lx	(70%): 24.3 lx	
(80%): 27.8 lx	(90%): 31.3 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

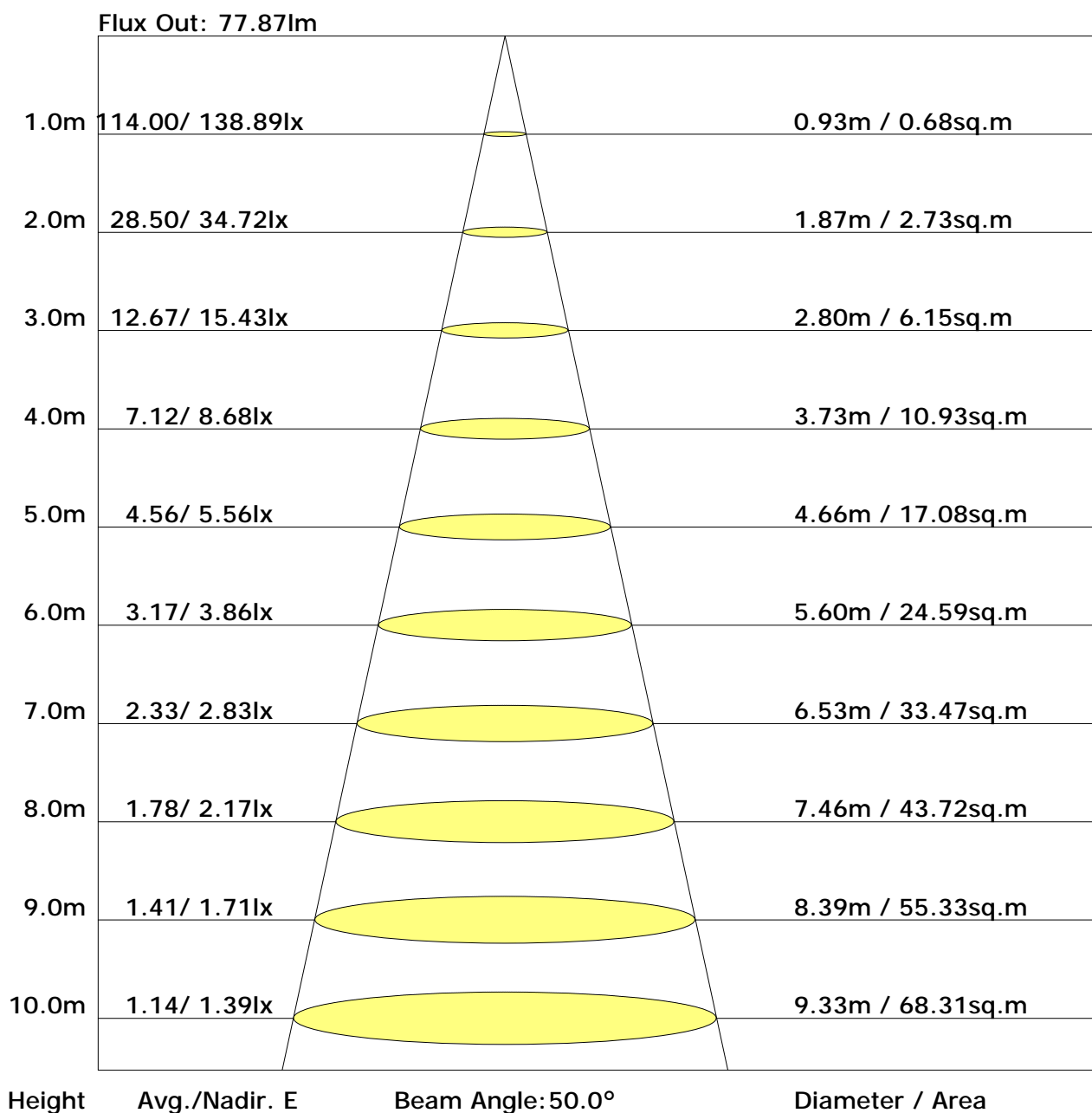
Unit: lm

		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	0.1	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	0.1	0.0	0.0	2.2	0.5	
	-80	0.0	0.1	0.2	0.3	0.5	0.7	0.8	0.9	0.9	0.9	0.8	0.6	0.5	0.3	0.2	0.1	0.0	0.0	7.8	7.1		
	-70	0.0	0.1	0.3	0.6	0.9	1.2	1.4	1.6	1.7	1.6	1.5	1.2	0.9	0.6	0.4	0.2	0.0	0.0	14.2	14.0		
	-60	0.0	0.2	0.4	0.8	1.2	1.6	2.0	2.2	2.4	2.3	2.1	1.8	1.4	1.0	0.6	0.3	0.1	0.0	20.5	20.4		
	-50	0.0	0.2	0.5	1.0	1.5	2.0	2.5	2.8	2.9	2.9	2.7	2.3	1.8	1.3	0.8	0.4	0.1	0.0	25.9	25.9		
	-40	0.0	0.2	0.6	1.2	1.8	2.4	2.9	3.3	3.4	3.4	3.2	2.7	2.2	1.6	1.0	0.5	0.1	0.0	30.4	30.4		
	-30	0.0	0.3	0.7	1.3	2.0	2.6	3.2	3.6	3.8	3.8	3.5	3.0	2.4	1.8	1.1	0.5	0.2	0.0	33.9	33.8		
	-20	0.0	0.3	0.7	1.4	2.1	2.8	3.4	3.8	4.1	4.0	3.7	3.3	2.6	1.9	1.2	0.6	0.2	0.0	36.2	36.2		
	-10	0.0	0.3	0.8	1.4	2.2	2.9	3.5	4.0	4.2	4.1	3.9	3.4	2.7	2.0	1.2	0.6	0.2	0.0	37.4	37.4		
	0	0.0	0.3	0.8	1.4	2.2	2.9	3.5	4.0	4.2	4.1	3.9	3.4	2.7	2.0	1.2	0.6	0.2	0.0	37.4	37.4		
	10	0.0	0.3	0.7	1.4	2.1	2.8	3.4	3.8	4.1	4.0	3.7	3.3	2.6	1.9	1.2	0.6	0.2	0.0	36.2	36.1		
	20	0.0	0.3	0.7	1.3	2.0	2.6	3.2	3.6	3.8	3.8	3.5	3.0	2.4	1.8	1.1	0.5	0.2	0.0	33.8	33.7		
	30	0.0	0.2	0.6	1.2	1.8	2.4	2.9	3.2	3.4	3.4	3.1	2.7	2.2	1.6	1.0	0.5	0.1	0.0	30.3	30.2		
	40	0.0	0.2	0.5	1.0	1.5	2.0	2.5	2.8	2.9	2.9	2.7	2.3	1.8	1.3	0.8	0.4	0.1	0.0	25.7	25.6		
	50	0.0	0.2	0.4	0.8	1.2	1.6	2.0	2.2	2.3	2.3	2.1	1.8	1.4	1.0	0.6	0.3	0.1	0.0	20.2	20.1		
	60	0.0	0.1	0.3	0.6	0.8	1.1	1.4	1.6	1.6	1.6	1.4	1.2	0.9	0.6	0.4	0.2	0.0	0.0	13.9	13.7		
	70	0.0	0.1	0.2	0.3	0.5	0.6	0.8	0.9	0.9	0.8	0.7	0.6	0.5	0.3	0.2	0.1	0.0	0.0	7.4	6.8		
	80	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	2.0	0.4		
	90	0.5	3.3	8.7	16.1	24.5	32.7	39.8	44.7	47.0	46.4	42.9	37.0	29.4	21.0	12.9	6.2	1.8	0.2	415			
	Flux(E)	0.2	2.9	8.4	15.8	24.2	32.4	39.5	44.4	46.7	46.1	42.6	36.7	29.1	20.7	12.6	5.9	1.4	0.0		410		

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	25.3	27.0	25.7	27.3	27.6	25.6	27.2	26.0	27.6	27.9
3H	27.0	28.5	27.4	28.8	29.2	27.3	28.8	27.7	29.1	29.5
4H	27.5	28.9	27.9	29.3	29.7	27.9	29.3	28.3	29.7	30.1
6H	27.8	29.1	28.3	29.5	29.9	28.3	29.6	28.7	30.0	30.4
8H	27.9	29.1	28.3	29.5	30.0	28.4	29.7	28.9	30.1	30.5
12H	27.9	29.1	28.4	29.5	29.9	28.5	29.7	28.9	30.1	30.5
X=4H Y=2H	25.9	27.3	26.3	27.7	28.1	26.2	27.6	26.6	28.0	28.4
3H	27.8	28.9	28.2	29.3	29.8	28.2	29.4	28.6	29.8	30.2
4H	28.4	29.5	28.8	29.9	30.3	28.9	30.0	29.4	30.4	30.9
6H	28.8	29.7	29.3	30.2	30.7	29.4	30.4	29.9	30.8	31.3
8H	28.9	29.8	29.4	30.2	30.7	29.6	30.4	30.0	30.9	31.4
12H	28.9	29.7	29.4	30.2	30.7	29.6	30.4	30.1	30.9	31.4
X=8H Y=4H	28.6	29.5	29.1	30.0	30.4	29.2	30.1	29.7	30.6	31.0
6H	29.1	29.8	29.6	30.3	30.8	29.8	30.6	30.3	31.1	31.6
8H	29.2	29.9	29.8	30.4	30.9	30.0	30.7	30.6	31.2	31.7
12H	29.3	29.9	29.8	30.4	30.9	30.2	30.7	30.7	31.2	31.8
X=12H Y=4H	28.7	29.4	29.1	29.9	30.4	29.3	30.1	29.8	30.5	31.0
6H	29.1	29.8	29.7	30.3	30.8	29.9	30.6	30.4	31.0	31.6
8H	29.3	29.9	29.8	30.4	30.9	30.1	30.7	30.7	31.2	31.8

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	0.86	0.90	0.95	0.99
	0.20		0.41	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		0.46	0.57	0.64	0.70	0.78	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	0.93
0.30	0.50	0.20	0.52	0.62	0.68	0.73	0.80	0.84	0.88	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	0.90
0.00	0.00	0.00	0.38	0.48	0.55	0.60	0.68	0.73	0.77	0.82	0.85
<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	1.02	0.84	0.72	0.63	0.50	0.41	0.35	0.28	0.22	
	0.30		0.85	0.72	0.63	0.55	0.45	0.38	0.33	0.26	0.21	
	0.20		0.73	0.63	0.55	0.50	0.41	0.35	0.31	0.24	0.20	
0.50	0.50	0.20	0.98	0.81	0.69	0.60	0.48	0.43	0.34	0.26	0.21	
	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	0.32	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	0.54	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: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	0.11	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	0.17	0.18	0.18
	0.20		0.05	0.07	0.08	0.09	0.11	0.12	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											