

Report No.: 01

Test Time: 2017/2/6 09:52

Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RB241.524PH

Luminous Length (mm): 500mm

Luminous Height (mm): 1mm

Current: 0.099 A

Power Factor: 1.000

Luminaire Description: RB241.524PH

Luminous Width (mm): 8mm

Voltage: 24.0 V

Power: 2.38 W

Photometric Results

CIE Class: Direct

Measurement Flux: 185.2 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H113.9

Vertical Diffuse Angle(50%): V114.1

Luminaire Efficacy Rating (LER): 78

Max. Intensity: 63.23 cd

Total Rated Lamp Lumens: 185.2 lm

Efficiency: 100%

Upward Ratio: 1%

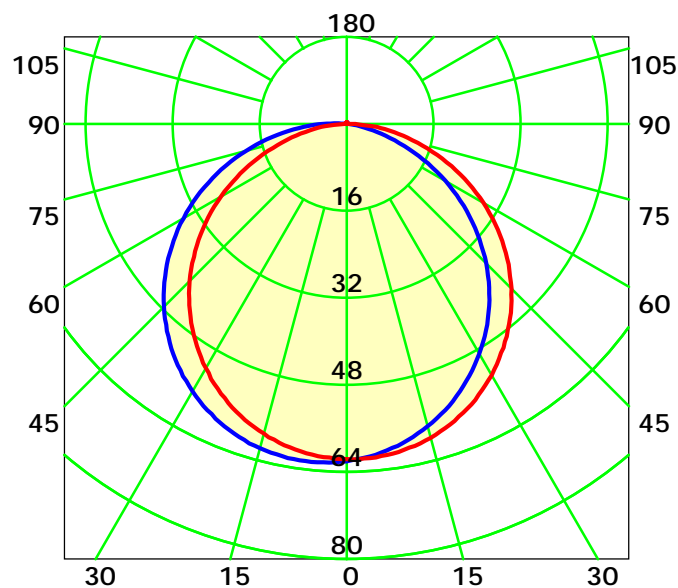
Central Intensity: 62.76 cd

Pos of Max. Intensity: H180 V6

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 114.0° 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

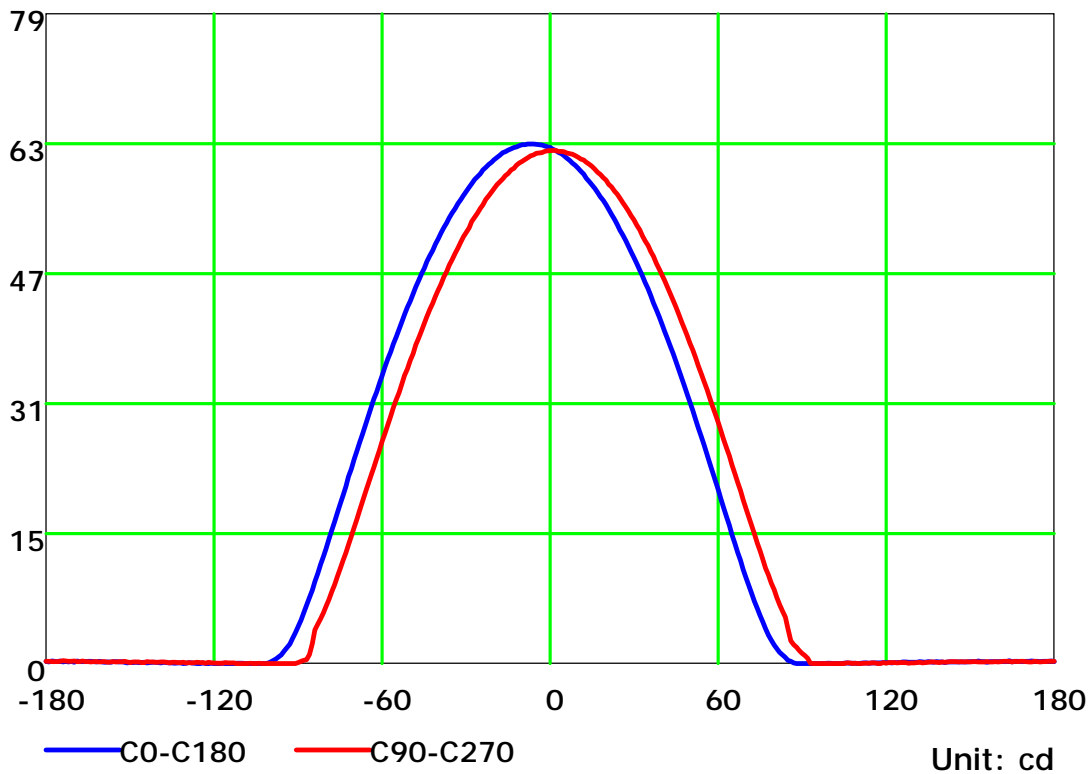
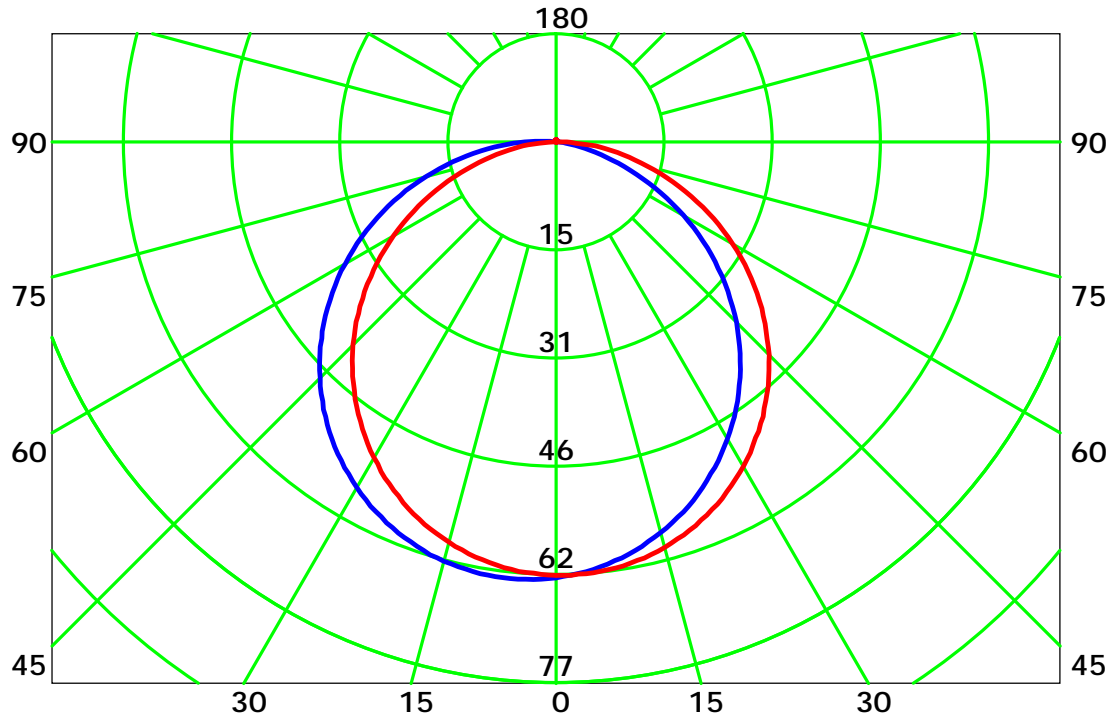
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

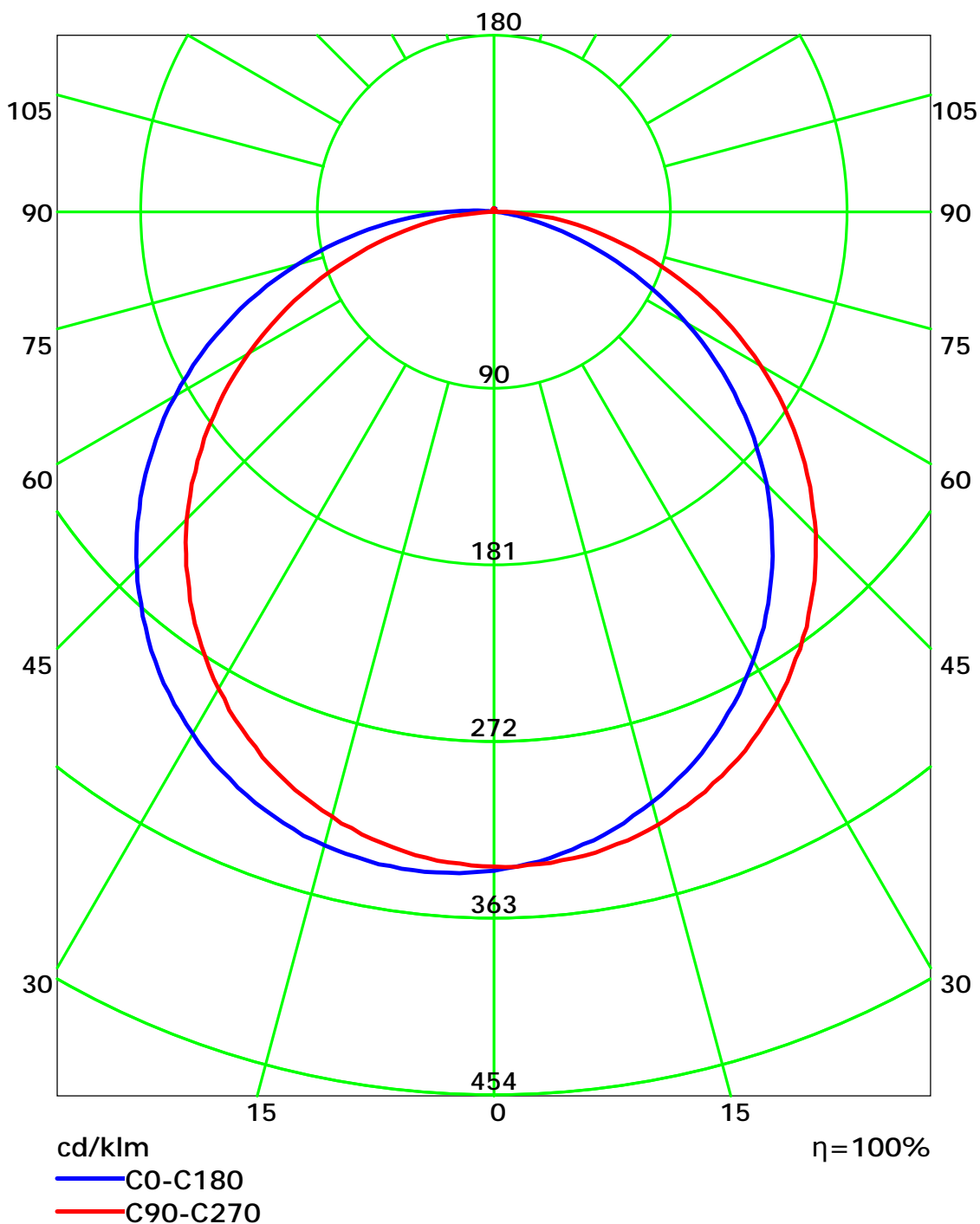
Luminous Intensity Distribution Curve



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℃
Operator: roy

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

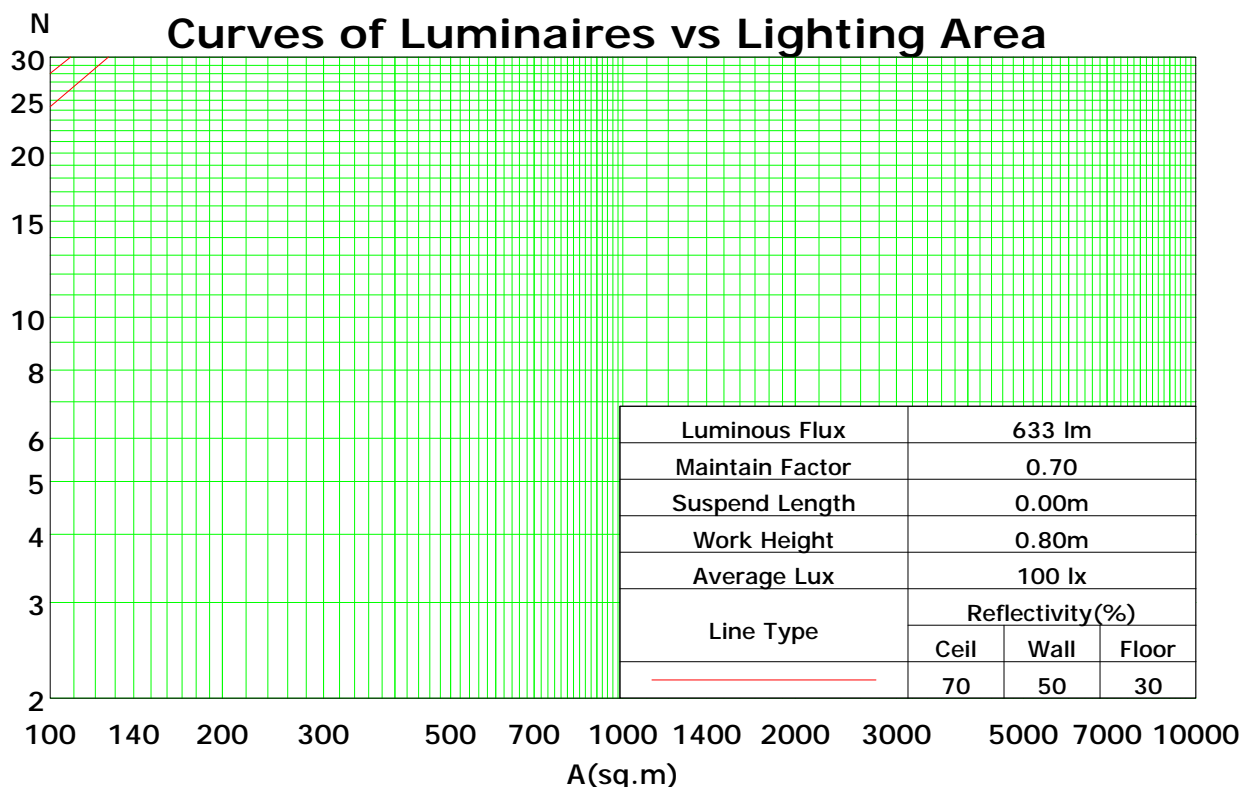
Coefficients Of Utilization - Zonal Cavity Method

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	89	87	88	86	84	82
2	98	90	83	77	95	88	81	76	84	78	74	80	76	72	77	74	70	68
3	89	79	70	64	87	77	69	63	74	67	62	71	65	60	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	40	51	44	39	49	43	39	37
7	64	51	42	35	62	50	41	35	48	40	35	46	40	35	45	39	34	32
8	60	46	37	32	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): 1.26

Spacing Criteria (90-270): 1.27

Spacing Criteria (Diagonal): 1.38



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

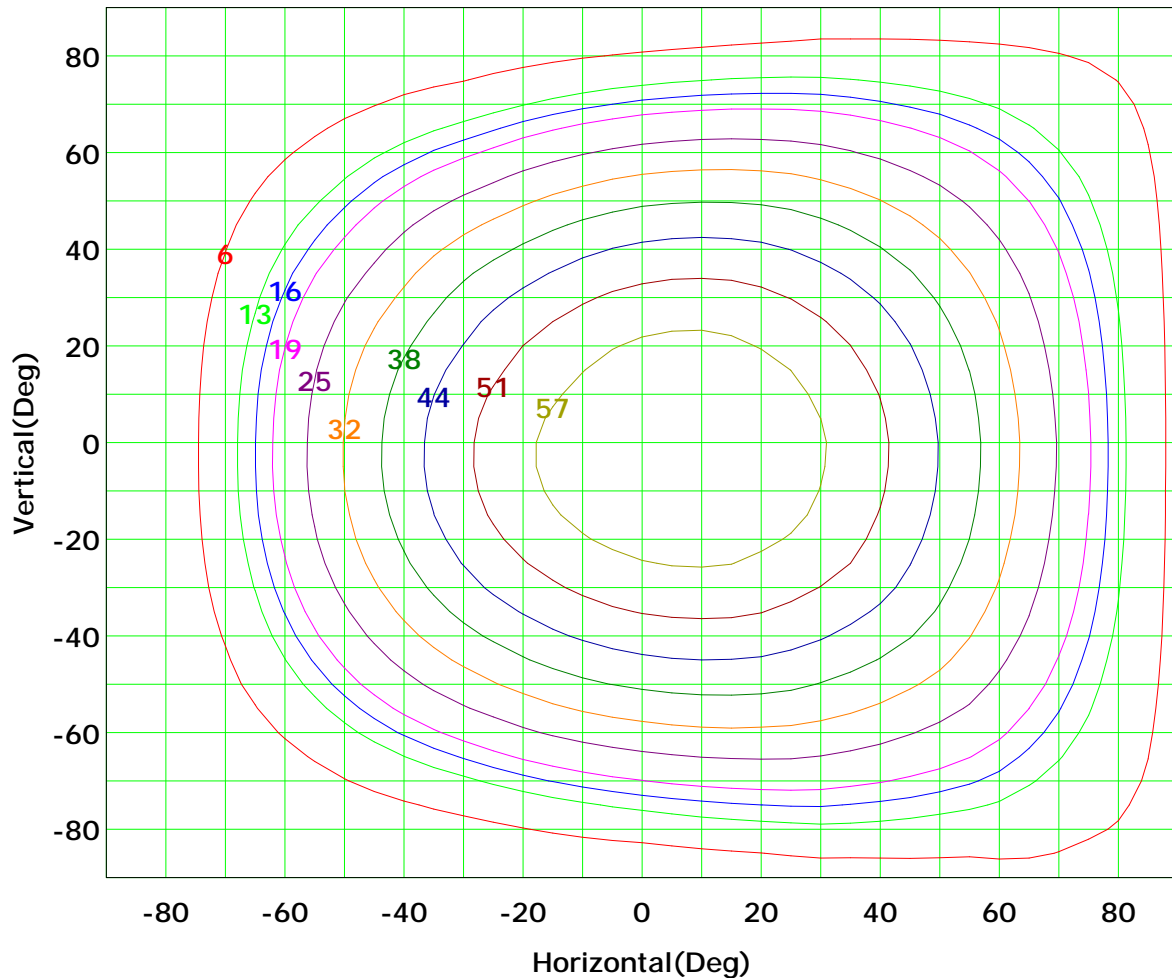
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Isocandela (rectangle)



I_{max} (100%): 63 cd

(10%):	6 cd	(20%):	13 cd
(25%):	16 cd	(30%):	19 cd
(40%):	25 cd	(50%):	32 cd
(60%):	38 cd	(70%):	44 cd
(80%):	51 cd	(90%):	57 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

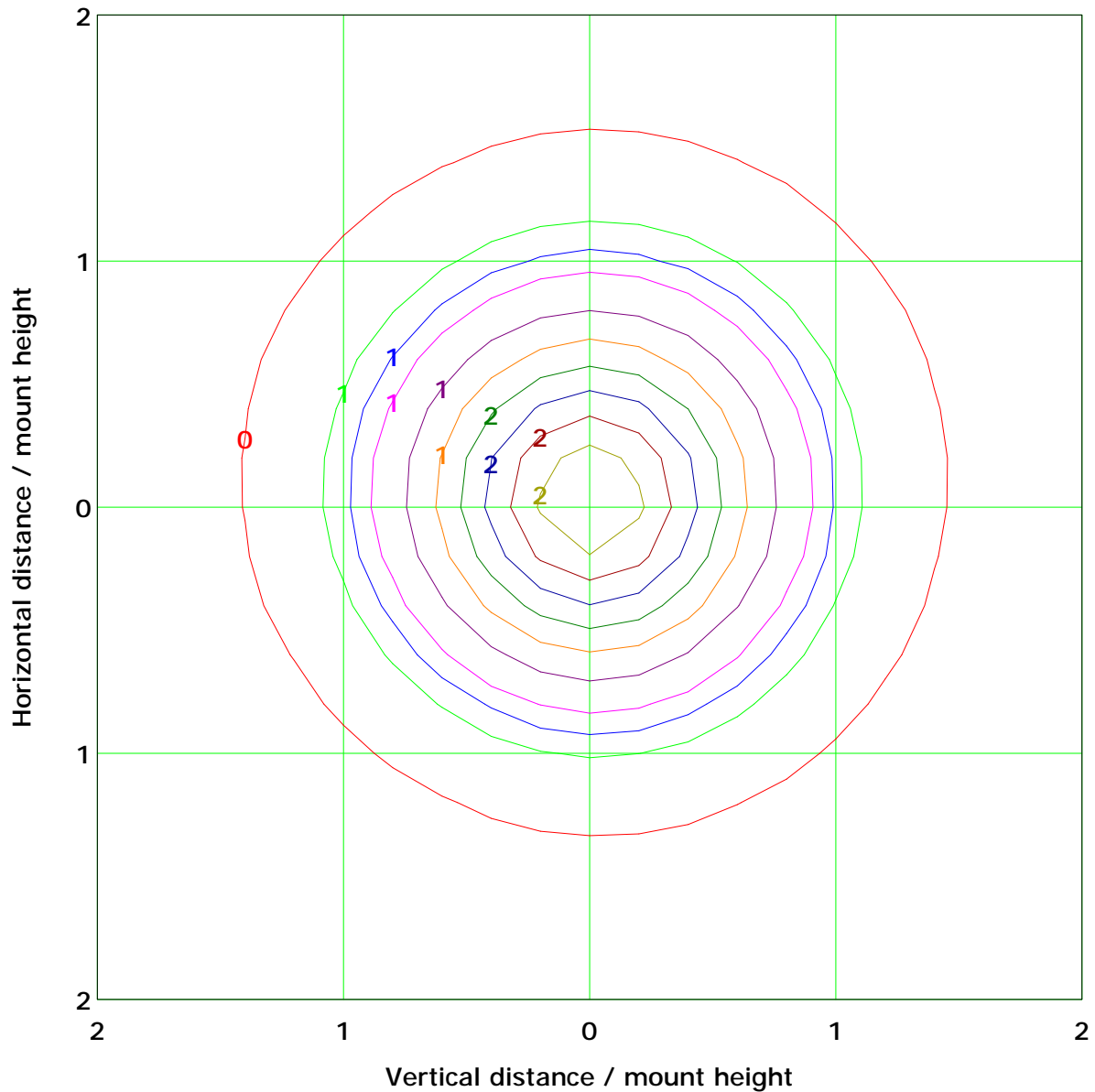
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 2.5 lx

(10%): 0.3 lx	(20%): 0.5 lx
(25%): 0.6 lx	(30%): 0.8 lx
(40%): 1.0 lx	(50%): 1.3 lx
(60%): 1.5 lx	(70%): 1.8 lx
(80%): 2.0 lx	(90%): 2.3 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

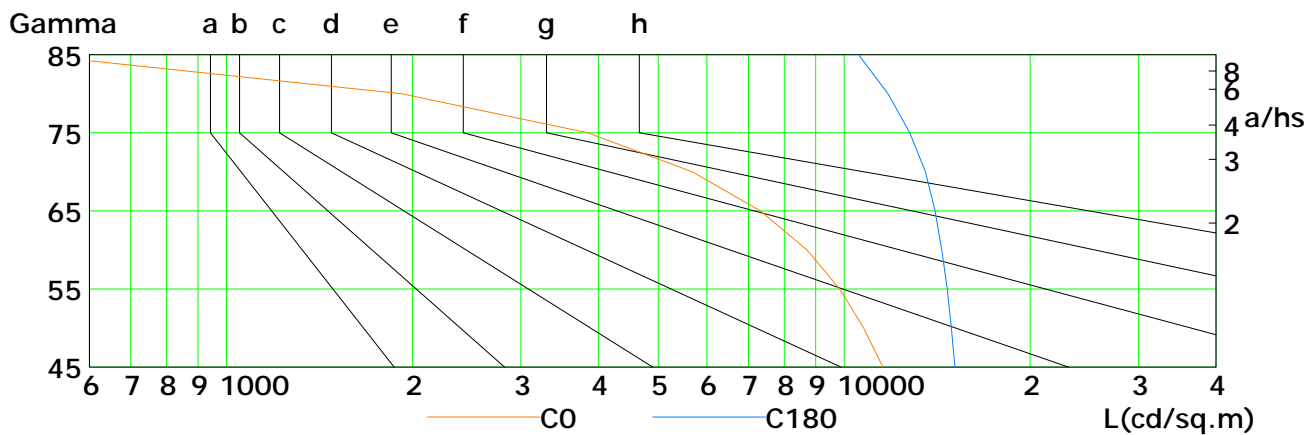
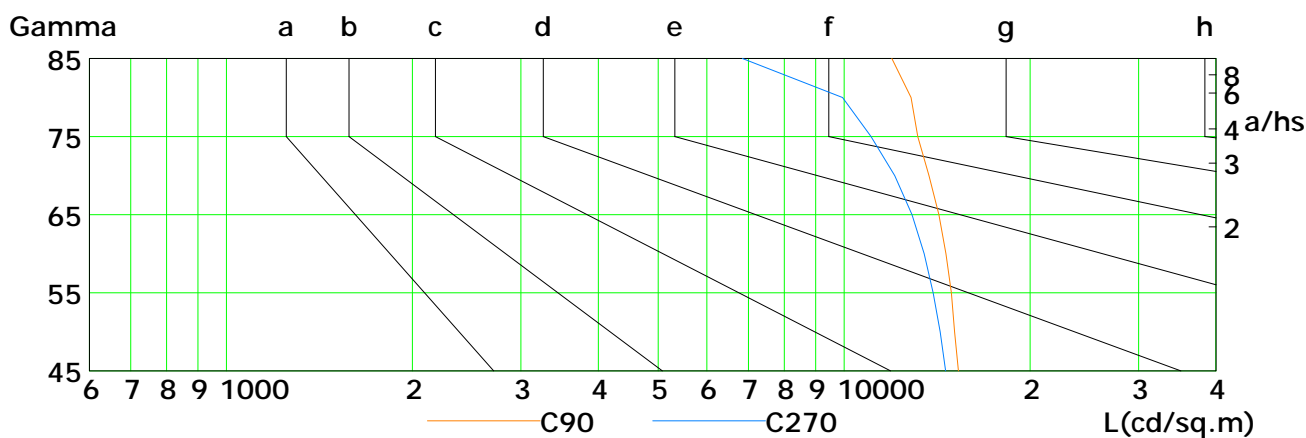
Humidity: 60%

Inspector:

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	11559	10758	9845	8709	7319	5686	3847	1921	484
C90	15314	15109	14916	14629	14248	13725	13164	12840	11946
C180	15110	14918	14690	14398	14046	13548	12778	11786	10558
C270	14608	14306	13943	13478	12888	12082	11055	9951	6843

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

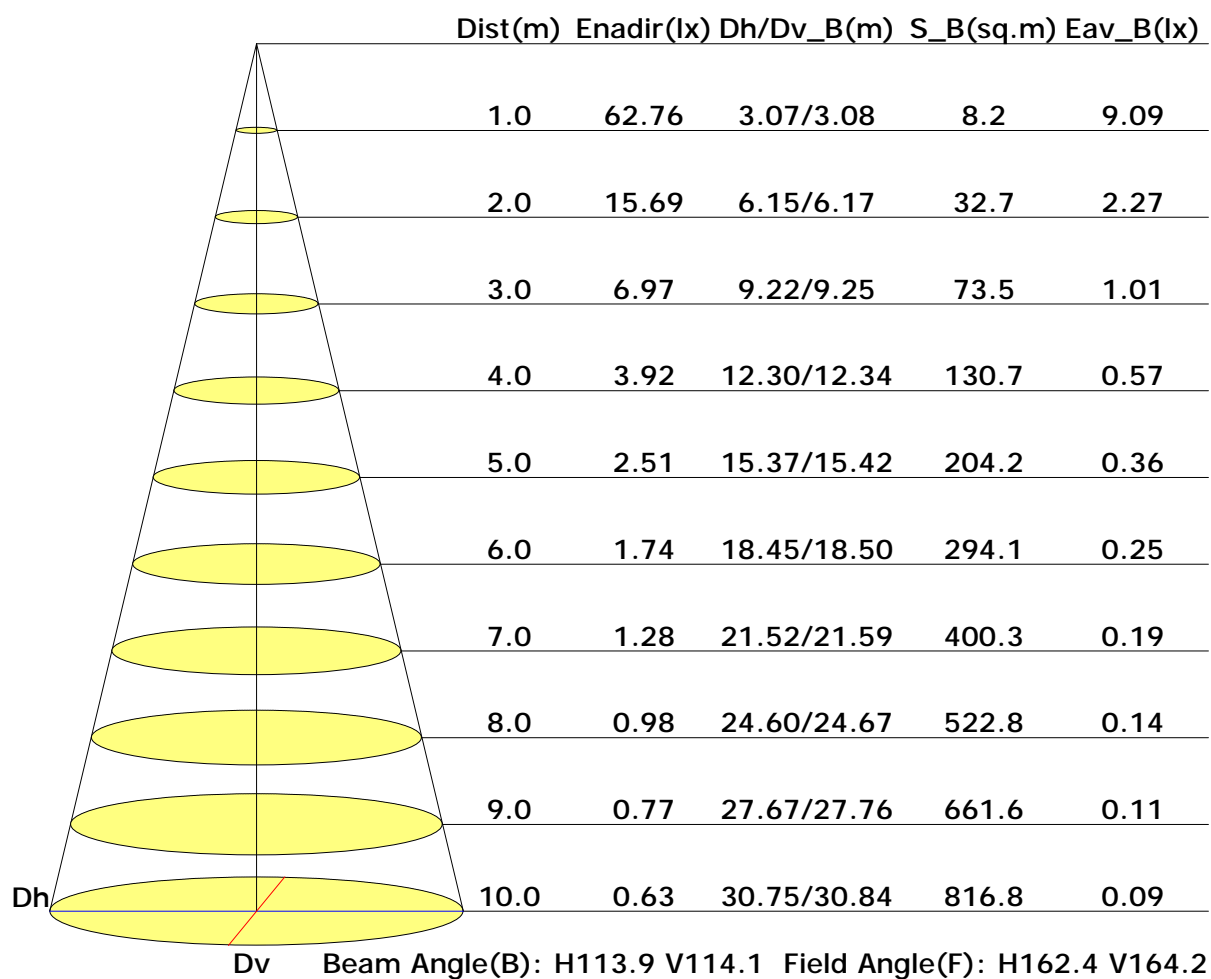
Test Device: GPM-1800B

Distance: 9.028 m

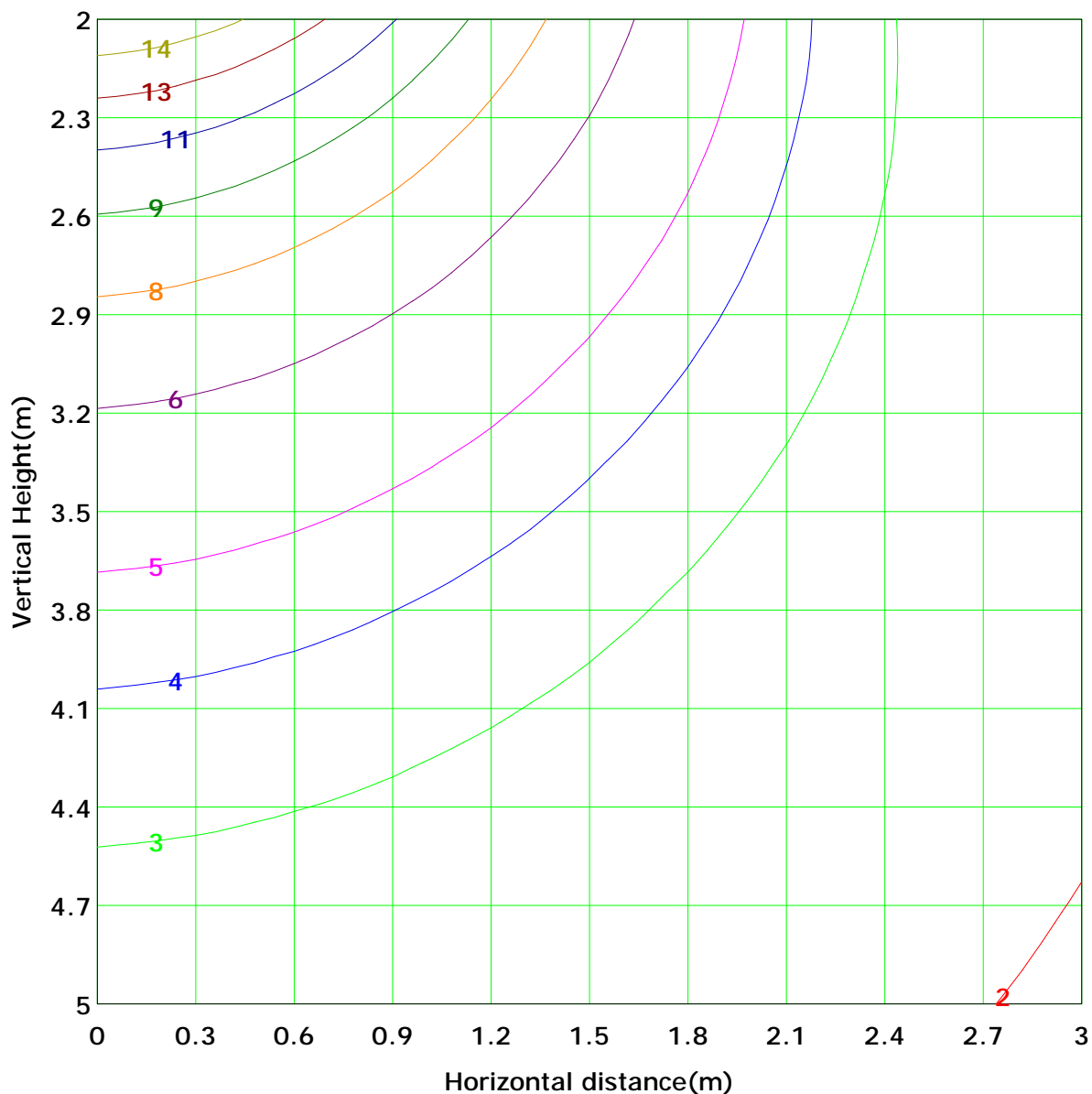
Humidity: 60%

Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 15.7 lx
(10%): 1.6 lx	(20%): 3.1 lx	
(25%): 3.9 lx	(30%): 4.7 lx	
(40%): 6.3 lx	(50%): 7.8 lx	
(60%): 9.4 lx	(70%): 11.0 lx	
(80%): 12.6 lx	(90%): 14.1 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

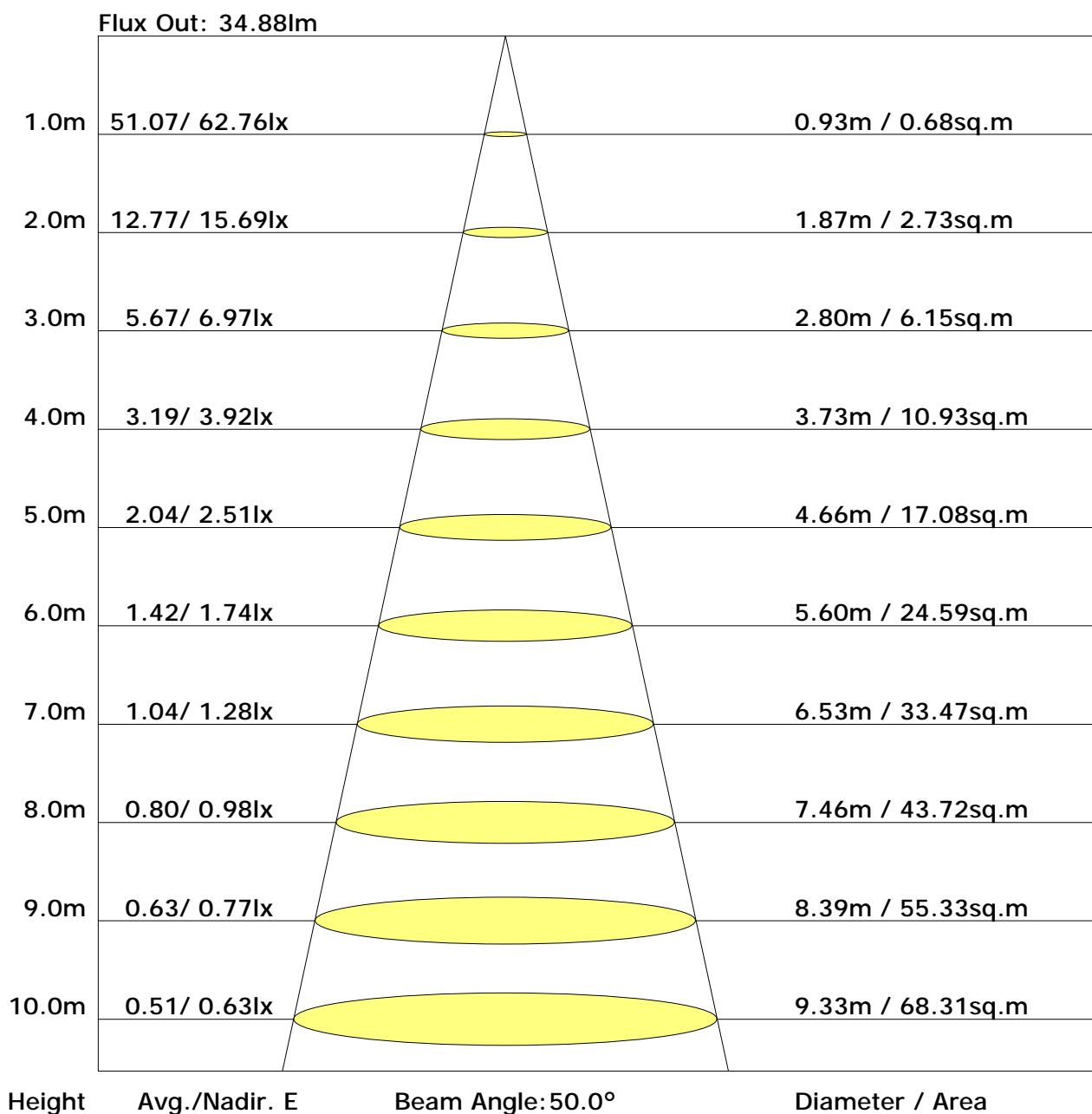
Unit: lm

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	1.0	1.4	1.6	1.6	1.5	1.3	1.0	0.7	0.4	0.1	0.0	0.4	0.3
	-80	0.0	0.1	0.1	0.2	0.3	0.4	0.6	0.9	1.0	1.3	1.6	1.6	1.5	1.3	1.0	0.7	0.4	0.1	0.0	2.0	1.9
	-70	0.0	0.1	0.2	0.3	0.4	0.5	0.7	0.9	1.0	1.3	1.6	1.6	1.5	1.3	1.0	0.7	0.4	0.1	0.0	4.7	4.6
	-60	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.0	0.8	0.6	0.4	0.2	0.1	0.0	8.2	8.1
	-50	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.0	0.8	0.6	0.4	0.2	0.1	0.0	12.0	11.9
	-40	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.0	0.8	0.6	0.4	0.2	0.1	0.0	15.7	15.5
	-30	0.0	0.1	0.3	0.3	0.6	0.8	1.1	1.2	1.3	1.5	1.6	1.6	1.5	1.3	1.0	0.7	0.4	0.1	0.0	18.6	18.5
	-20	0.0	0.1	0.3	0.6	0.9	1.1	1.3	1.5	1.6	1.7	1.7	1.6	1.5	1.3	1.0	0.7	0.4	0.1	0.0	20.5	20.4
	-10	0.0	0.2	0.4	0.7	1.0	1.2	1.4	1.6	1.8	1.9	1.9	1.8	1.7	1.5	1.2	0.9	0.6	0.4	0.1	21.1	20.9
	0	0.0	0.2	0.4	0.7	1.0	1.2	1.4	1.6	1.8	1.9	1.9	1.8	1.7	1.5	1.2	0.9	0.6	0.4	0.1	20.3	20.1
	10	0.0	0.2	0.4	0.7	1.0	1.2	1.4	1.6	1.8	1.9	1.9	1.8	1.7	1.5	1.2	0.9	0.6	0.4	0.1	18.3	18.1
	20	0.0	0.2	0.4	0.7	1.0	1.2	1.4	1.6	1.8	1.9	1.9	1.8	1.7	1.5	1.2	0.9	0.6	0.4	0.1	15.3	15.0
	30	0.0	0.2	0.4	0.7	1.0	1.2	1.4	1.6	1.8	1.9	1.9	1.8	1.7	1.5	1.2	0.9	0.6	0.4	0.1	11.7	11.5
	40	0.0	0.2	0.4	0.7	1.0	1.2	1.4	1.6	1.8	1.9	1.9	1.8	1.7	1.5	1.2	0.9	0.6	0.4	0.1	8.0	7.8
	50	0.0	0.2	0.4	0.7	1.0	1.2	1.4	1.6	1.8	1.9	1.9	1.8	1.7	1.5	1.2	0.9	0.6	0.4	0.1	4.6	4.4
	60	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.0	0.8	0.6	0.4	0.2	0.1	0.0	2.0	1.7
	70	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.0	0.8	0.6	0.4	0.2	0.1	0.0	0.5	0.2
	80	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.0	0.8	0.6	0.4	0.2	0.1	0.0	0.0	0.0
	90	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.0	0.8	0.6	0.4	0.2	0.1	0.0	0.0	0.0
	Flux(T)	0.4	2.0	4.7	8.2	12.0	15.7	18.6	20.5	21.1	20.3	18.3	15.3	11.7	8.0	4.6	2.0	0.5	0.0	0.0	184	
	Flux(E)	0.3	1.9	4.6	8.1	11.9	15.5	18.5	20.4	20.9	20.1	18.1	15.0	11.5	7.8	4.4	1.7	0.2	0.0	0.0		181
	Flux(T)Flux(E)																					

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	25.4	27.0	25.7	27.3	27.7	26.9	28.6	27.3	28.9	29.2
3H	26.6	28.1	27.0	28.5	28.8	28.7	30.2	29.1	30.5	30.9
4H	27.0	28.4	27.4	28.7	29.1	29.3	30.7	29.7	31.1	31.5
6H	27.1	28.4	27.5	28.8	29.2	29.8	31.1	30.2	31.5	31.9
8H	27.1	28.3	27.5	28.7	29.2	30.0	31.2	30.4	31.6	32.0
12H	27.1	28.3	27.5	28.7	29.1	30.1	31.3	30.5	31.7	32.1
X=4H Y=2H	25.9	27.3	26.3	27.7	28.1	27.6	29.0	28.0	29.4	29.8
3H	27.3	28.5	27.8	28.9	29.3	29.6	30.8	30.0	31.2	31.6
4H	27.7	28.8	28.2	29.2	29.7	30.4	31.5	30.8	31.9	32.3
6H	27.9	28.9	28.4	29.3	29.8	31.0	31.9	31.5	32.4	32.9
8H	27.9	28.8	28.4	29.3	29.8	31.2	32.1	31.7	32.5	33.0
12H	27.9	28.7	28.4	29.2	29.7	31.4	32.2	31.9	32.6	33.1
X=8H Y=4H	27.9	28.8	28.4	29.3	29.8	30.8	31.7	31.3	32.1	32.6
6H	28.2	28.9	28.7	29.4	29.9	31.5	32.3	32.1	32.8	33.3
8H	28.2	28.9	28.7	29.4	29.9	31.9	32.5	32.4	33.0	33.5
12H	28.2	28.8	28.7	29.3	29.9	32.1	32.7	32.6	33.2	33.8
X=12H Y=4H	28.0	28.8	28.5	29.2	29.7	30.9	31.7	31.4	32.2	32.6
6H	28.2	28.9	28.7	29.3	29.9	31.7	32.3	32.2	32.8	33.4
8H	28.3	28.8	28.8	29.3	29.9	32.0	32.6	32.6	33.1	33.7

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	0.87	0.91	0.95	0.98
	0.30		0.47	0.57	0.64	0.70	0.77	0.83	0.86	0.92	0.95
	0.20		0.41	0.51	0.59	0.64	0.73	0.78	0.83	0.88	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	0.88	0.91
	0.20		0.41	0.51	0.58	0.63	0.71	0.76	0.80	0.86	0.89
0.00	0.00	0.00	0.39	0.48	0.55	0.60	0.67	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		0.84	0.72	0.62	0.55	0.45	0.38	0.33	0.26	0.22
	0.20		0.72	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	0.27	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	0.33	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	0.19	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	0.15	0.16	0.17
0.50	0.50	0.20	0.17	0.18	0.19	0.19	0.20	0.21	0.21	0.21	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	0.10	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: 2W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											