

Report No.: 01

Test Time: 2017/2/4 12:23

Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RB245.060PH

Luminous Length (mm): 500mm

Luminous Height (mm): 1mm

Current: 0.381 A

Power Factor: 1.000

Luminaire Description: RB245.060PH

Luminous Width (mm): 10mm

Voltage: 24.0 V

Power: 9.14 W

Photometric Results

CIE Class: Direct

Measurement Flux: 831.2 lm

Downward Ratio: 98%

Horizontal Diffuse Angle(50%): H118.5

Vertical Diffuse Angle(50%): V119.1

Luminaire Efficacy Rating (LER): 91

Max. Intensity: 262.31 cd

Total Rated Lamp Lumens: 831.2 lm

Efficiency: 100%

Upward Ratio: 2%

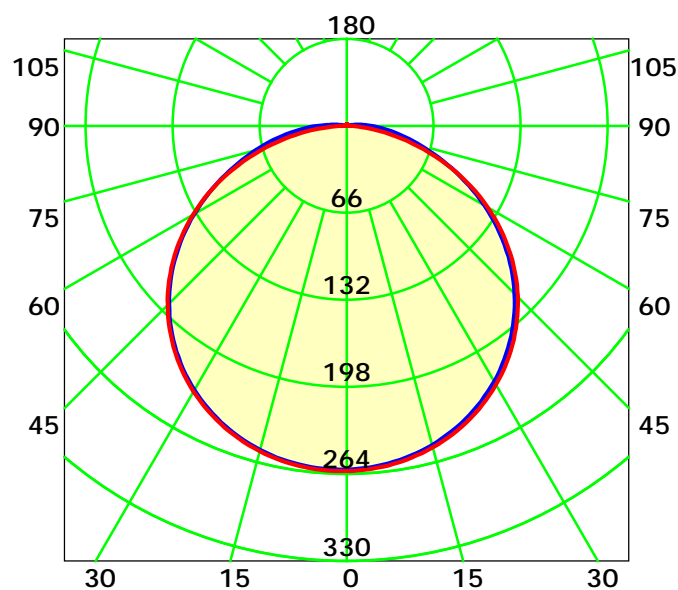
Central Intensity: 261.13 cd

Pos of Max. Intensity: H270 V2

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 118.86° 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

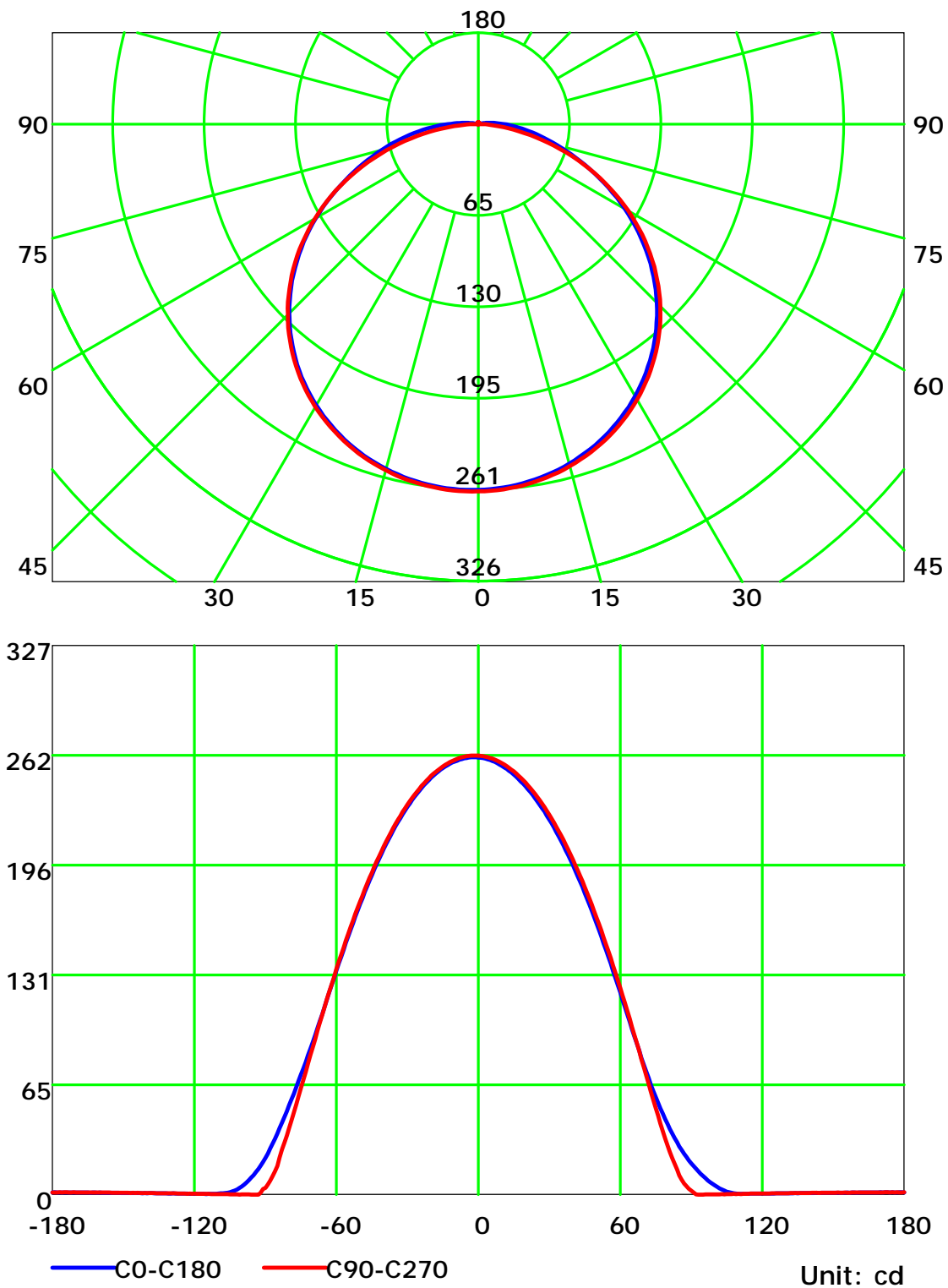
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

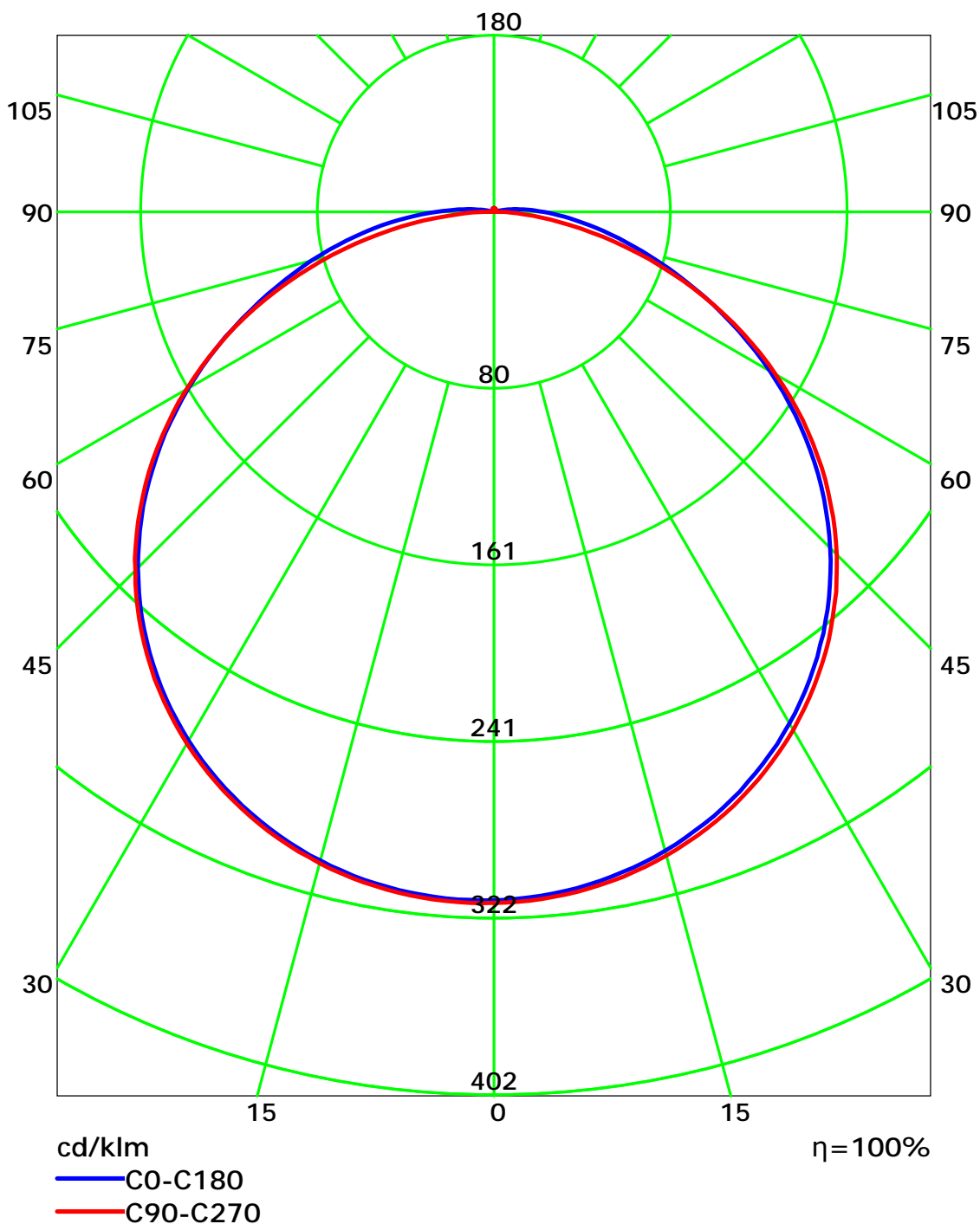
Luminous Intensity Distribution Curve



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:

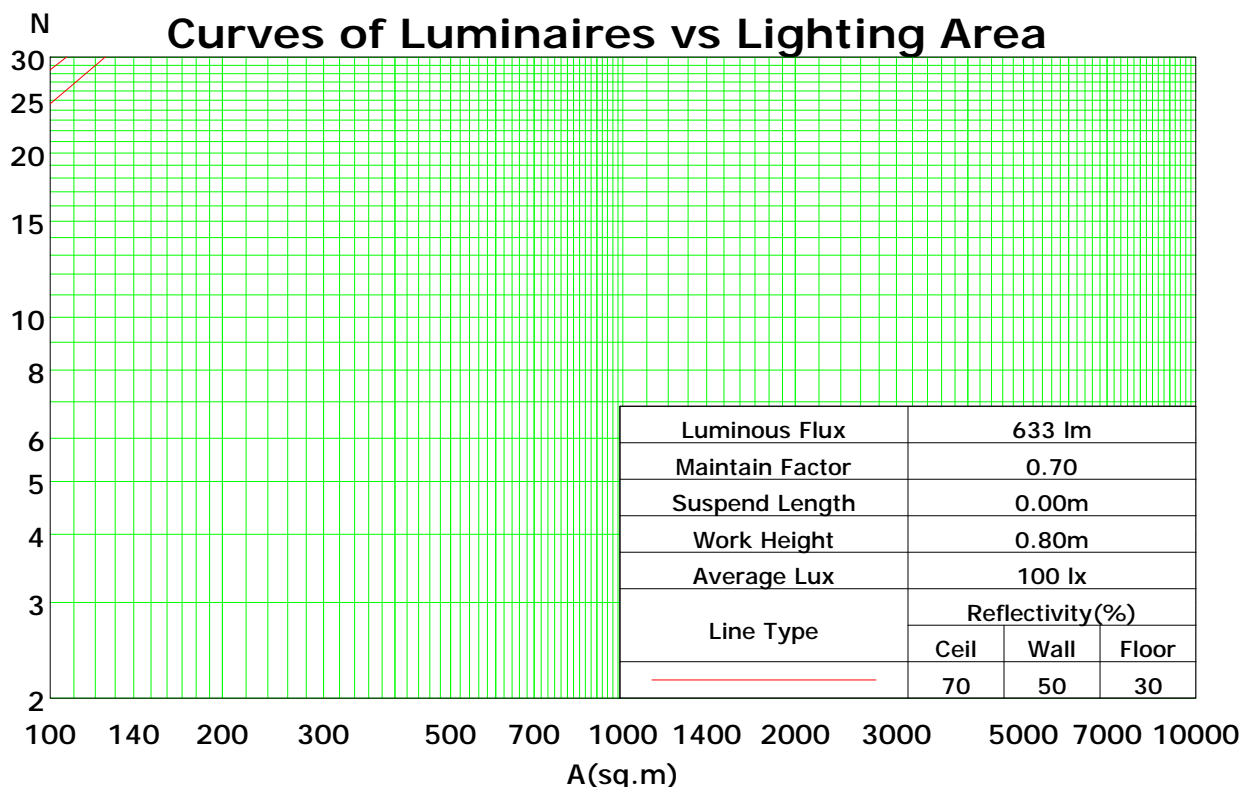
Coefficients Of Utilization - Zonal Cavity Method

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	110	110	110	105	105	105	101	101	101	98
1	107	102	98	94	105	100	96	92	95	92	89	91	88	86	87	85	83	81
2	97	89	81	75	94	87	80	74	83	77	72	79	75	70	76	72	69	66
3	88	77	69	62	86	76	68	61	72	66	60	69	64	59	67	62	58	55
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	59	54	49	47
5	74	61	52	45	72	60	51	44	57	50	44	55	48	43	53	47	43	40
6	68	55	46	39	66	54	45	39	52	44	38	50	43	38	48	42	37	35
7	63	50	41	34	62	49	40	34	47	39	34	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	29	27
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	38	30	25	36	29	24	35	29	24	34	28	24	22

Spacing Criteria (0-180): 1.30

Spacing Criteria (90-270): 1.30

Spacing Criteria (Diagonal): 1.42



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

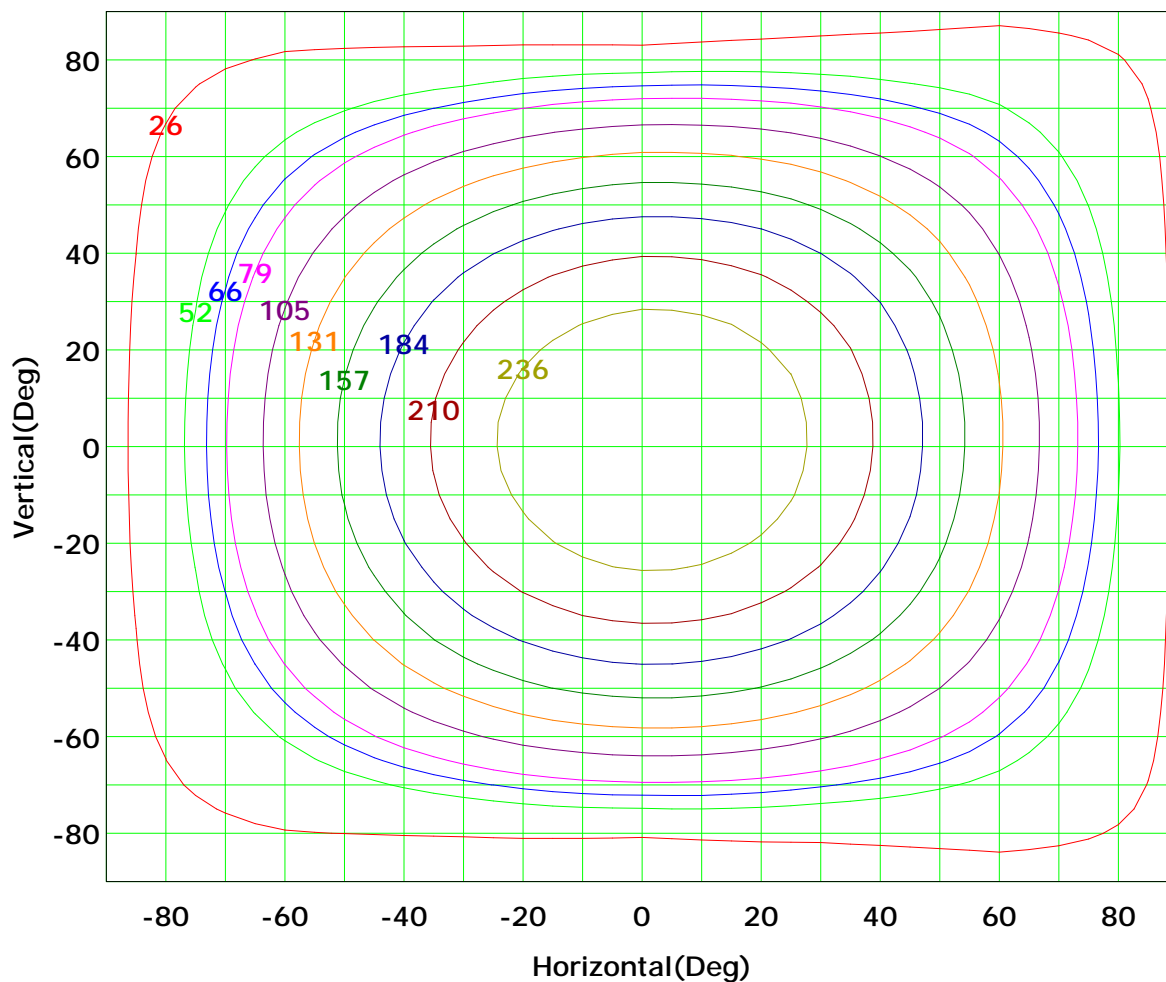
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Isocandela (rectangle)



I_{max} (100%): 262 cd

(10%): 26 cd	(20%): 52 cd
(25%): 66 cd	(30%): 79 cd
(40%): 105 cd	(50%): 131 cd
(60%): 157 cd	(70%): 184 cd
(80%): 210 cd	(90%): 236 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

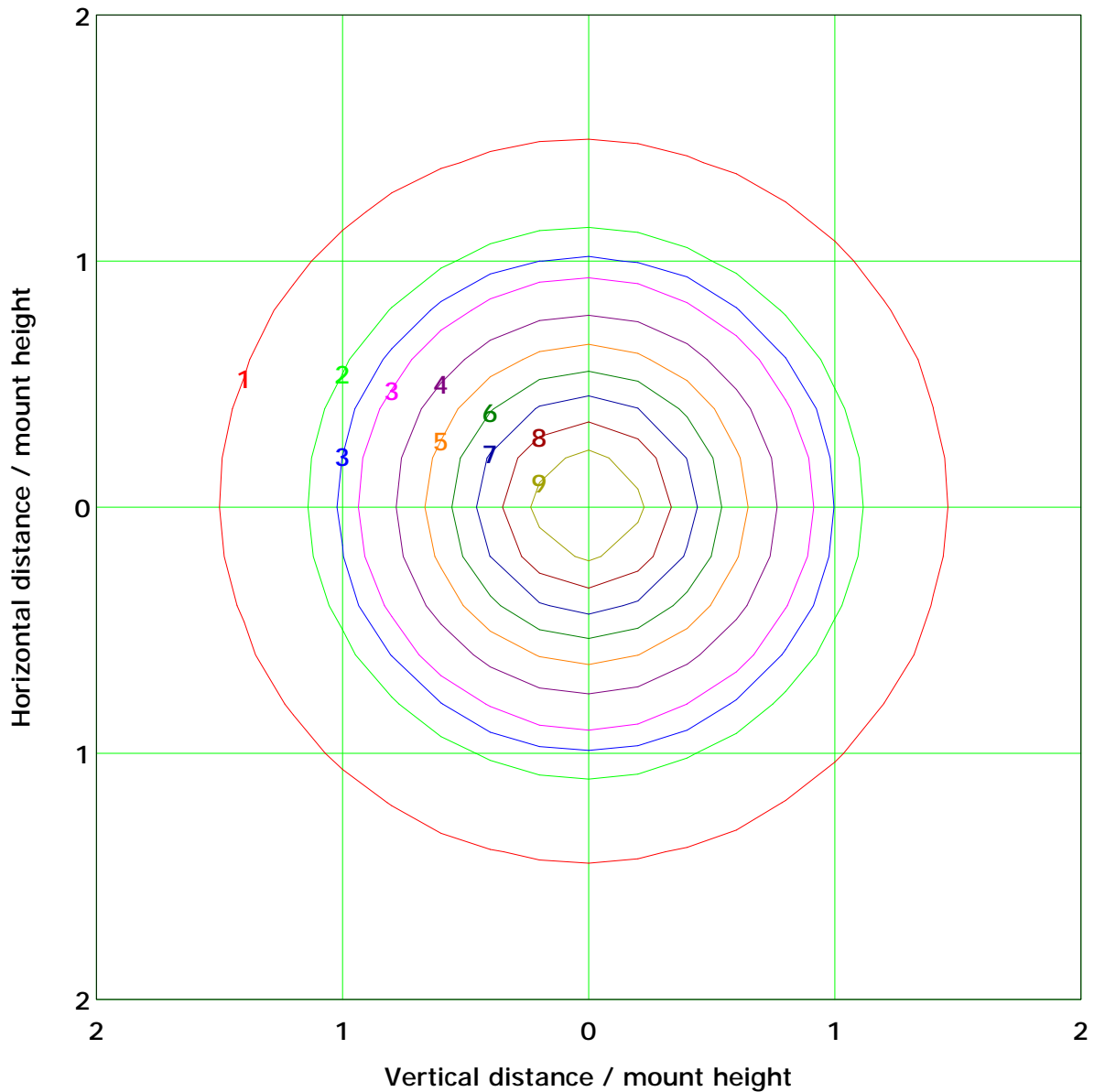
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

IsoLux Plot



Mounting Height: 5.0m		Max Lux(100%): 10.5 lx	
(10%):	1.0 lx	(20%):	2.1 lx
(25%):	2.6 lx	(30%):	3.1 lx
(40%):	4.2 lx	(50%):	5.2 lx
(60%):	6.3 lx	(70%):	7.3 lx
(80%):	8.4 lx	(90%):	9.4 lx

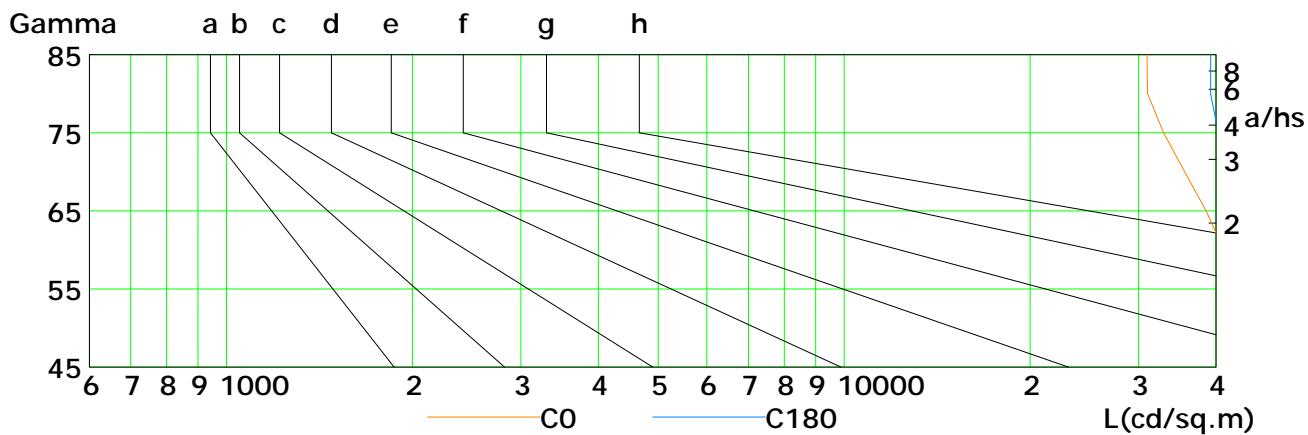
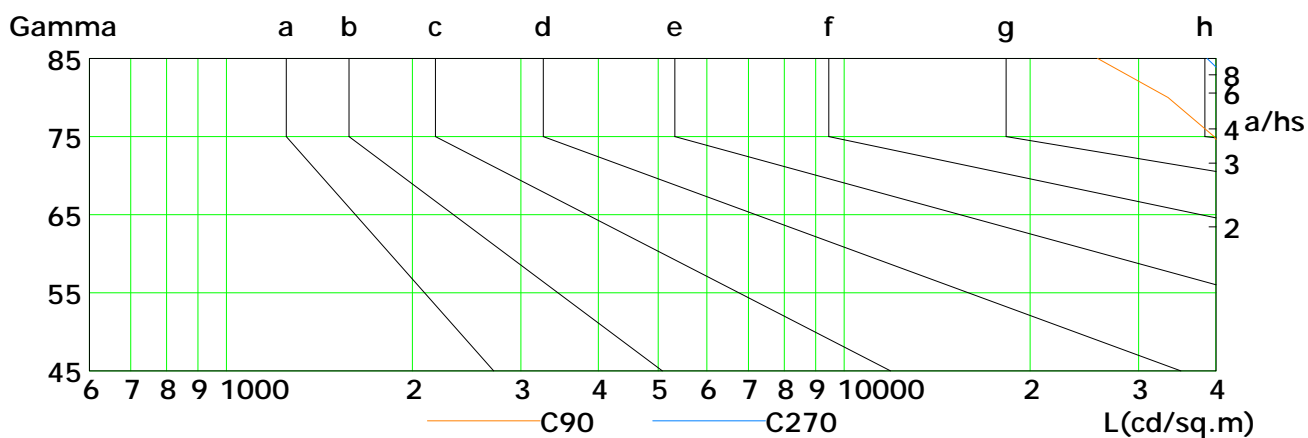
C Plane (°):0.0-360.0: 30.0
Test Lab: acolyteled
Test Type: TYPE C
Temperature: 25°C
Operator: roy

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	46384	45046	43360	41207	38550	35597	32891	31022	30946
C90	51911	51375	50565	49229	47249	44280	39739	33459	25755
C180	49112	48294	47101	45636	43819	41854	40376	39224	39224
C270	54324	54358	54171	53722	52913	51265	48882	45178	38700

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

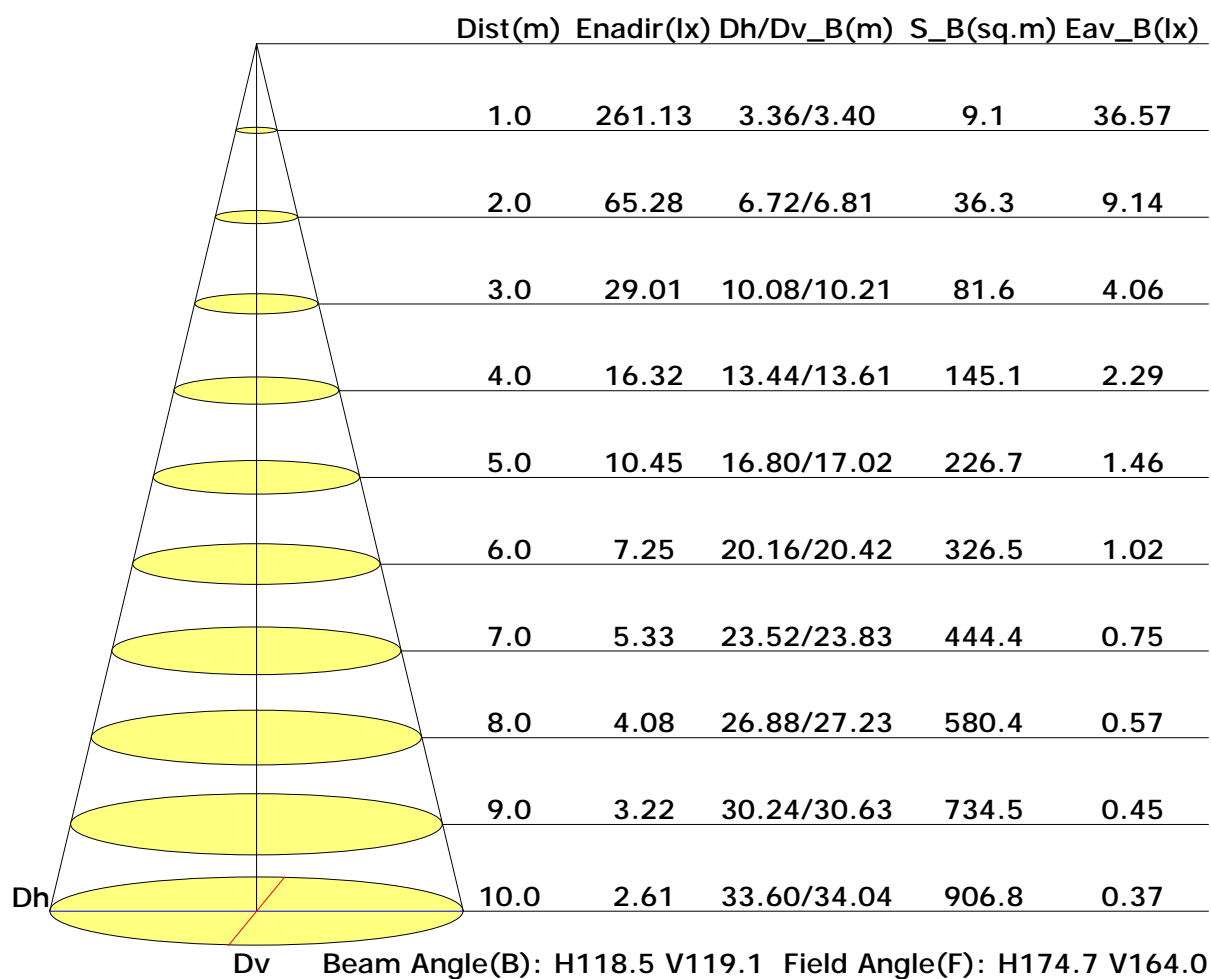
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Illuminance at a Distance



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

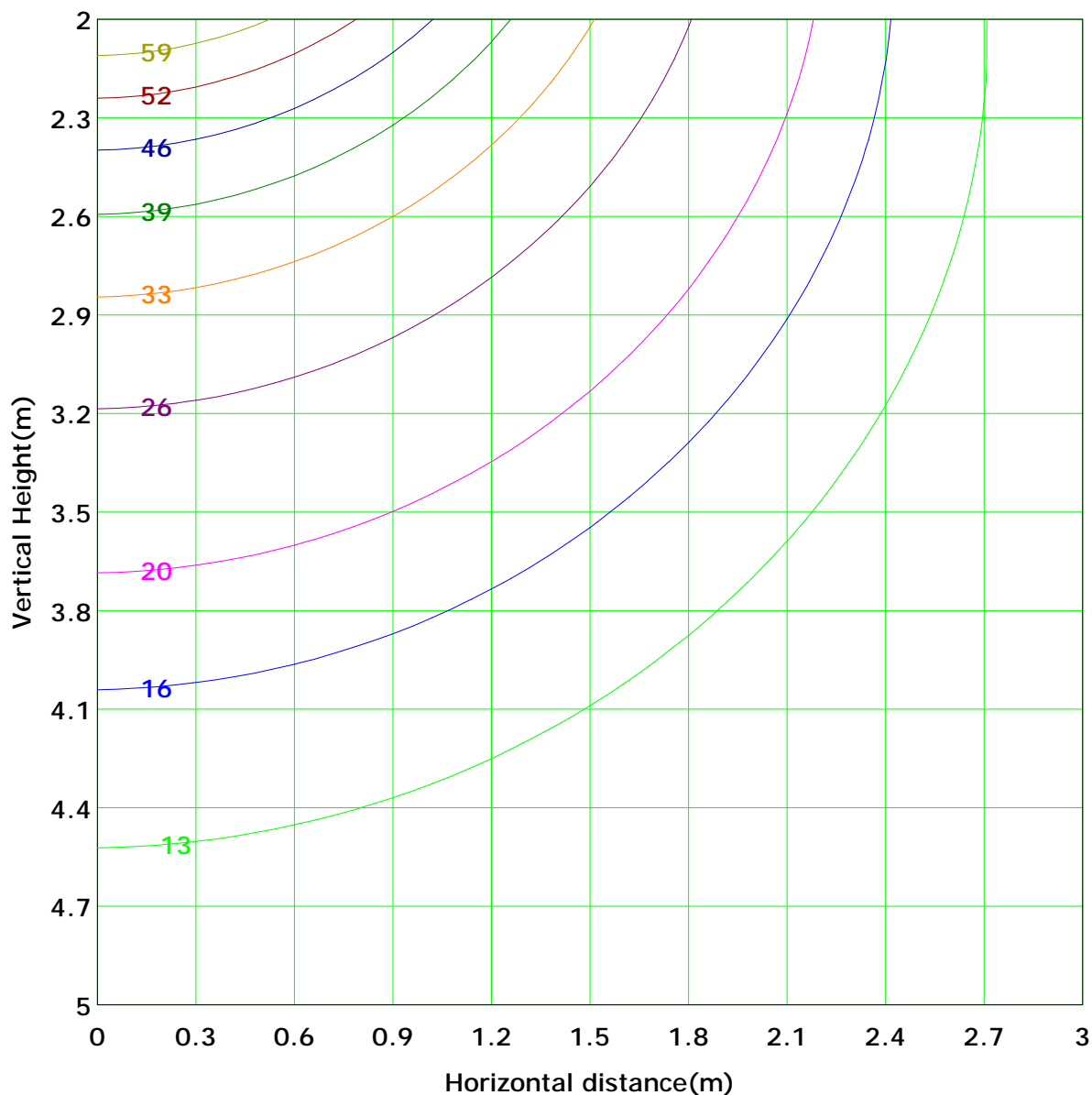
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 65.3 lx
(10%): 6.5 lx	(20%): 13.1 lx	
(25%): 16.3 lx	(30%): 19.6 lx	
(40%): 26.1 lx	(50%): 32.6 lx	
(60%): 39.2 lx	(70%): 45.7 lx	
(80%): 52.2 lx	(90%): 58.8 lx	

C Plane (°):0.0-360.0: 30.0
Test Lab: acolyteled
Test Type: TYPE C
Temperature: 25°C
Operator: roy

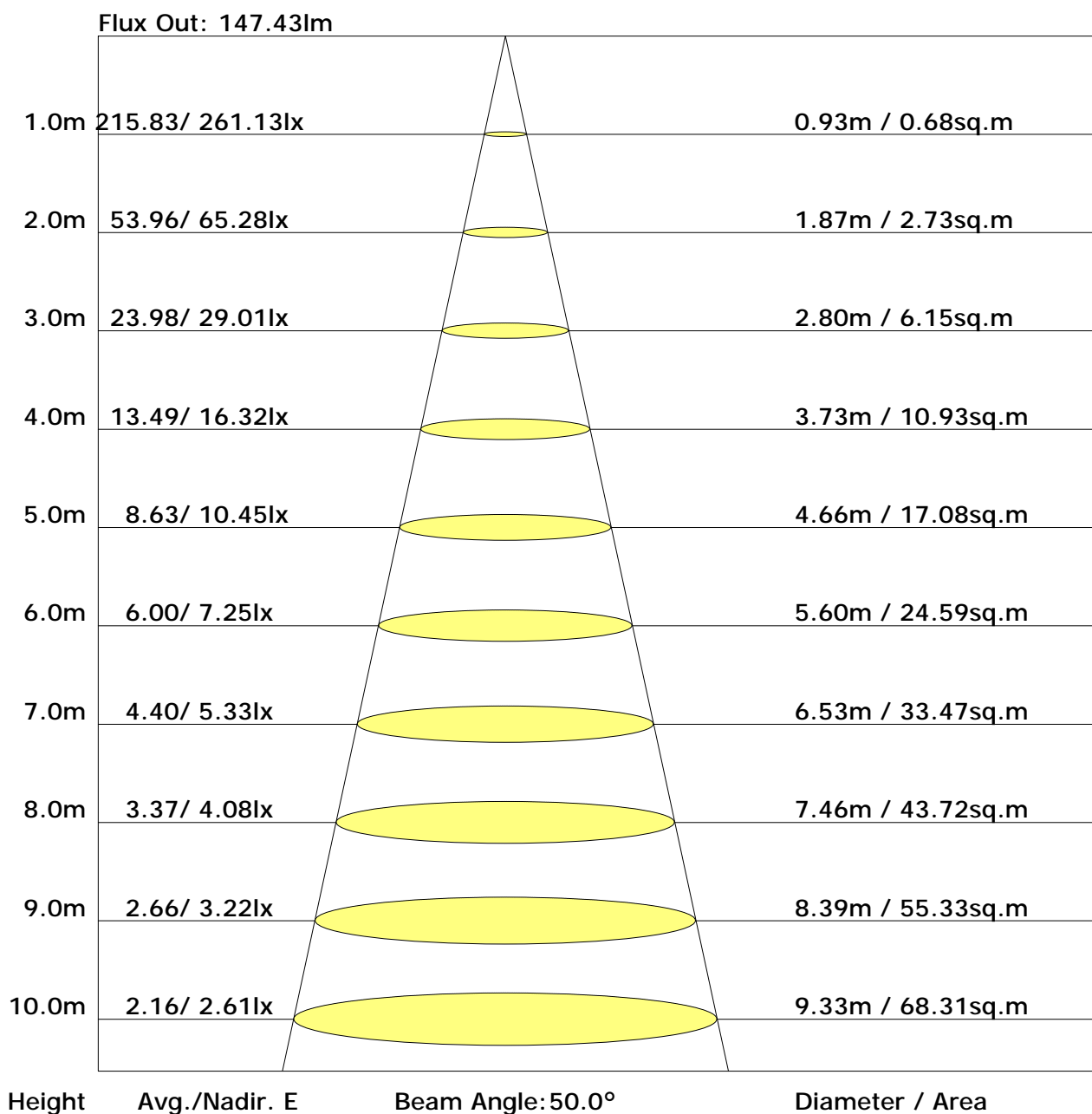
Gamma Plane (°):0.0-180.0:1.0
Test Device: GPM-1800B
Distance: 9.028 m
Humidity: 60%
Inspector:

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		0.1	0.2	0.4	0.5	0.6	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.4	0.4	0.4	0.3	0.1	1.6	1.4
		0.1	0.3	0.5	0.8	1.1	1.4	1.7	1.9	2.0	1.9	1.7	1.5	1.2	0.9	0.7	0.7	0.6	0.3	0.1	7.5	7.2
		0.1	0.3	0.7	1.2	1.8	2.4	2.9	3.2	3.4	3.3	3.1	2.6	2.1	1.5	1.0	1.0	0.9	0.6	0.1	17.6	17.3
		0.1	0.4	0.9	1.6	2.4	3.2	4.0	4.5	4.7	4.7	4.3	3.7	2.9	2.1	1.3	0.9	0.7	0.3	0.1	31.5	31.1
		0.1	0.4	1.1	2.0	3.0	4.0	4.9	5.5	5.8	5.8	5.4	4.6	3.7	2.7	1.7	1.4	1.3	0.8	0.1	47.2	46.7
		0.1	0.5	1.2	2.3	3.4	4.6	5.6	6.3	6.7	6.6	6.2	5.4	4.3	3.2	2.0	1.7	1.5	0.9	0.1	62.7	62.1
		0.1	0.5	1.3	2.5	3.8	5.1	6.2	6.9	7.3	7.3	6.8	5.9	4.8	3.5	2.2	1.9	1.4	0.9	0.1	76.1	75.5
		0.1	0.6	1.4	2.6	4.0	5.4	6.5	7.3	7.7	7.7	7.2	6.3	5.1	3.8	2.4	1.9	1.5	1.0	0.1	85.6	85.0
		0.1	0.6	1.5	2.7	4.1	5.5	6.6	7.5	7.9	7.8	7.3	6.5	5.3	3.9	2.5	1.9	1.5	1.0	0.1	90.3	89.6
		0.1	0.6	1.5	2.7	4.1	5.5	6.6	7.5	7.9	7.8	7.3	6.5	5.3	3.9	2.5	1.9	1.5	1.0	0.1	89.5	88.9
		0.1	0.6	1.4	2.6	3.9	5.3	6.4	7.2	7.6	7.6	7.1	6.2	5.0	3.7	2.4	1.7	1.4	0.9	0.1	83.5	82.8
		0.1	0.5	1.3	2.4	3.7	4.9	6.0	6.8	7.2	7.1	6.7	5.8	4.7	3.4	2.2	1.6	1.2	0.8	0.1	72.9	72.2
		0.1	0.5	1.2	2.1	3.3	4.4	5.4	6.1	6.5	6.4	6.0	5.2	4.2	3.1	1.9	1.4	0.9	0.6	0.1	58.9	58.2
		0.1	0.4	1.0	1.8	2.8	3.8	4.6	5.2	5.5	5.5	5.1	4.5	3.6	2.6	1.6	1.0	0.7	0.4	0.1	43.2	42.5
		0.1	0.4	0.8	1.5	2.2	3.0	3.6	4.1	4.4	4.4	4.0	3.5	2.8	2.0	1.3	0.9	0.5	0.2	0.1	27.9	27.3
		0.1	0.3	0.6	1.1	1.6	2.1	2.5	2.9	3.0	3.0	2.8	2.4	1.9	1.4	0.9	0.5	0.2	0.2	0.1	15.0	14.4
		0.1	0.2	0.5	0.7	1.0	1.2	1.4	1.5	1.6	1.6	1.5	1.3	1.1	0.8	0.6	0.4	0.2	0.2	0.1	6.1	5.5
		0.1	0.2	0.3	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.1	0.1	6.3	5.5
		0.1	0.2	0.3	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.1	0.1	6.3	5.5

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	25.9	27.6	26.3	27.9	28.3	25.7	27.4	26.1	27.7	28.1
3H	27.8	29.3	28.2	29.6	30.0	27.4	28.9	27.8	29.3	29.7
4H	28.6	30.0	29.0	30.4	30.8	28.0	29.4	28.4	29.8	30.2
6H	29.3	30.6	29.7	31.0	31.4	28.4	29.7	28.8	30.1	30.5
8H	29.6	30.9	30.1	31.3	31.7	28.5	29.7	28.9	30.1	30.6
12H	30.0	31.2	30.4	31.6	32.0	28.5	29.7	29.0	30.1	30.6
X=4H Y=2H	26.5	27.9	26.9	28.3	28.7	26.4	27.8	26.8	28.2	28.6
3H	28.6	29.8	29.0	30.2	30.7	28.3	29.5	28.7	29.9	30.3
4H	29.5	30.6	30.0	31.0	31.5	29.0	30.1	29.4	30.5	31.0
6H	30.4	31.3	30.9	31.8	32.3	29.5	30.4	29.9	30.9	31.4
8H	30.8	31.7	31.3	32.2	32.6	29.6	30.5	30.1	31.0	31.5
12H	31.2	32.0	31.7	32.5	33.0	29.7	30.5	30.2	31.0	31.5
X=8H Y=4H	29.8	30.7	30.3	31.2	31.7	29.4	30.2	29.8	30.7	31.2
6H	30.8	31.6	31.3	32.1	32.6	29.9	30.7	30.5	31.2	31.7
8H	31.3	32.0	31.9	32.5	33.1	30.2	30.8	30.7	31.4	31.9
12H	31.9	32.5	32.5	33.0	33.6	30.3	30.9	30.8	31.4	32.0
X=12H Y=4H	29.8	30.7	30.3	31.2	31.7	29.4	30.2	29.9	30.7	31.2
6H	30.9	31.6	31.4	32.1	32.6	30.1	30.8	30.6	31.2	31.8
8H	31.5	32.1	32.0	32.6	33.2	30.3	30.9	30.9	31.4	32.0

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 = 1.50								
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	0.57	0.66	0.73	0.79	0.86	0.91	0.94	0.99	1.02
	0.30		0.50	0.58	0.66	0.71	0.79	0.85	0.89	0.94	0.98
	0.20		0.44	0.52	0.60	0.66	0.74	0.80	0.84	0.91	0.95
0.50	0.50	0.20	0.56	0.64	0.71	0.76	0.82	0.87	0.90	0.95	0.97
	0.30		0.49	0.57	0.64	0.70	0.77	0.82	0.86	0.91	0.94
	0.20		0.44	0.51	0.59	0.65	0.72	0.78	0.82	0.88	0.91
0.30	0.50	0.20	0.54	0.62	0.68	0.73	0.79	0.84	0.87	0.91	0.93
	0.30		0.48	0.56	0.63	0.68	0.75	0.80	0.83	0.88	0.91
	0.20		0.43	0.51	0.58	0.63	0.71	0.76	0.80	0.85	0.88
0.00	0.00	0.00	0.41	0.48	0.55	0.60	0.67	0.72	0.76	0.80	0.83
Rating:9W 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 = 1.50									
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	0.98	0.83	0.71	0.62	0.50	0.42	0.36	0.28	0.23	
	0.30		0.82	0.71	0.62	0.55	0.45	0.38	0.33	0.27	0.22	
	0.20		0.70	0.62	0.55	0.49	0.41	0.35	0.31	0.25	0.21	
0.50	0.50	0.20	0.94	0.80	0.68	0.59	0.48	0.43	0.34	0.27	0.22	
	0.30		0.80	0.69	0.60	0.53	0.44	0.37	0.32	0.25	0.21	
	0.20		0.69	0.61	0.54	0.48	0.40	0.34	0.30	0.24	0.20	
0.30	0.50	0.20	0.91	0.77	0.65	0.57	0.46	0.38	0.33	0.26	0.21	
	0.30		0.78	0.68	0.58	0.51	0.42	0.36	0.31	0.24	0.20	
	0.20		0.68	0.60	0.53	0.47	0.39	0.33	0.29	0.23	0.19	
0.00	0.00	0.00	0.58	0.51	0.43	0.38	0.31	0.27	0.23	0.18	0.15	
<p>Rating:9W 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 = 1.50									
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	0.18	0.19	0.20	0.21	0.21	0.22	0.22	0.23	0.23	
	0.30		0.11	0.12	0.14	0.15	0.16	0.18	0.18	0.20	0.21	
	0.20		0.06	0.08	0.09	0.10	0.12	0.14	0.15	0.17	0.18	
0.50	0.50	0.20	0.17	0.18	0.19	0.20	0.21	0.21	0.22	0.22	0.22	
	0.30		0.11	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20	
	0.20		0.06	0.07	0.09	0.10	0.12	0.14	0.15	0.16	0.17	
0.30	0.50	0.20	0.16	0.18	0.19	0.19	0.20	0.20	0.21	0.21	0.21	
	0.30		0.10	0.12	0.13	0.14	0.15	0.17	0.17	0.18	0.19	
	0.20		0.06	0.07	0.09	0.10	0.12	0.13	0.14	0.16	0.17	
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:9W 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>												