

Report No.:

Test Time: 2018/8/31 16:07

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RIBBONLYTE

Luminaire Description: RBS2245.035PH 1FT(320mm)

Luminous Length (mm): 320

Luminous Width (mm): 10

Luminous Height (mm): 1

Voltage: 24.0 V

Current: 0.223 A

Power: 5.34 W

Power Factor: 1.000

## Photometric Results

CIE Class: Direct

Measurement Flux: 722.7 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H117.6

Vertical Diffuse Angle(50%): V117.3

Luminaire Efficacy Rating (LER): 135

Max. Intensity: 239.62 cd

Total Rated Lamp Lumens: 722.7 lm

Efficiency: 100%

Upward Ratio: 1%

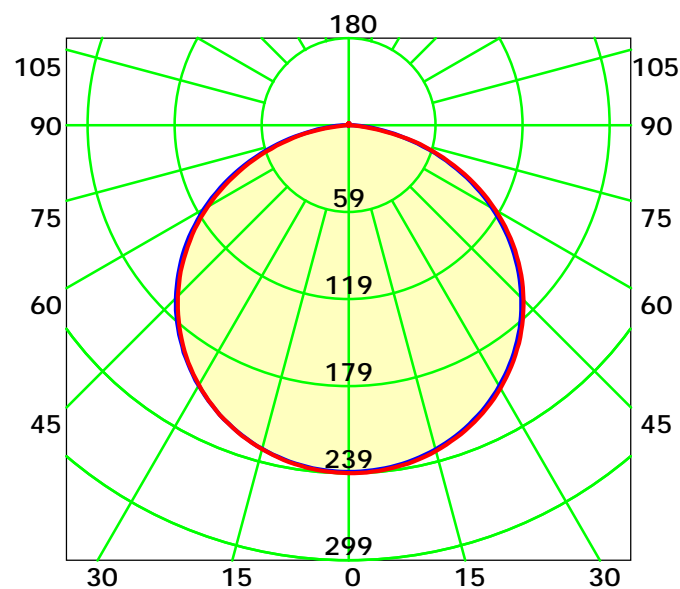
Central Intensity: 238.64 cd

Pos of Max. Intensity: H150 V0

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 117.4° Unit: cd

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Aaron

Gamma Plane (°):0.0-180.0: 1.0

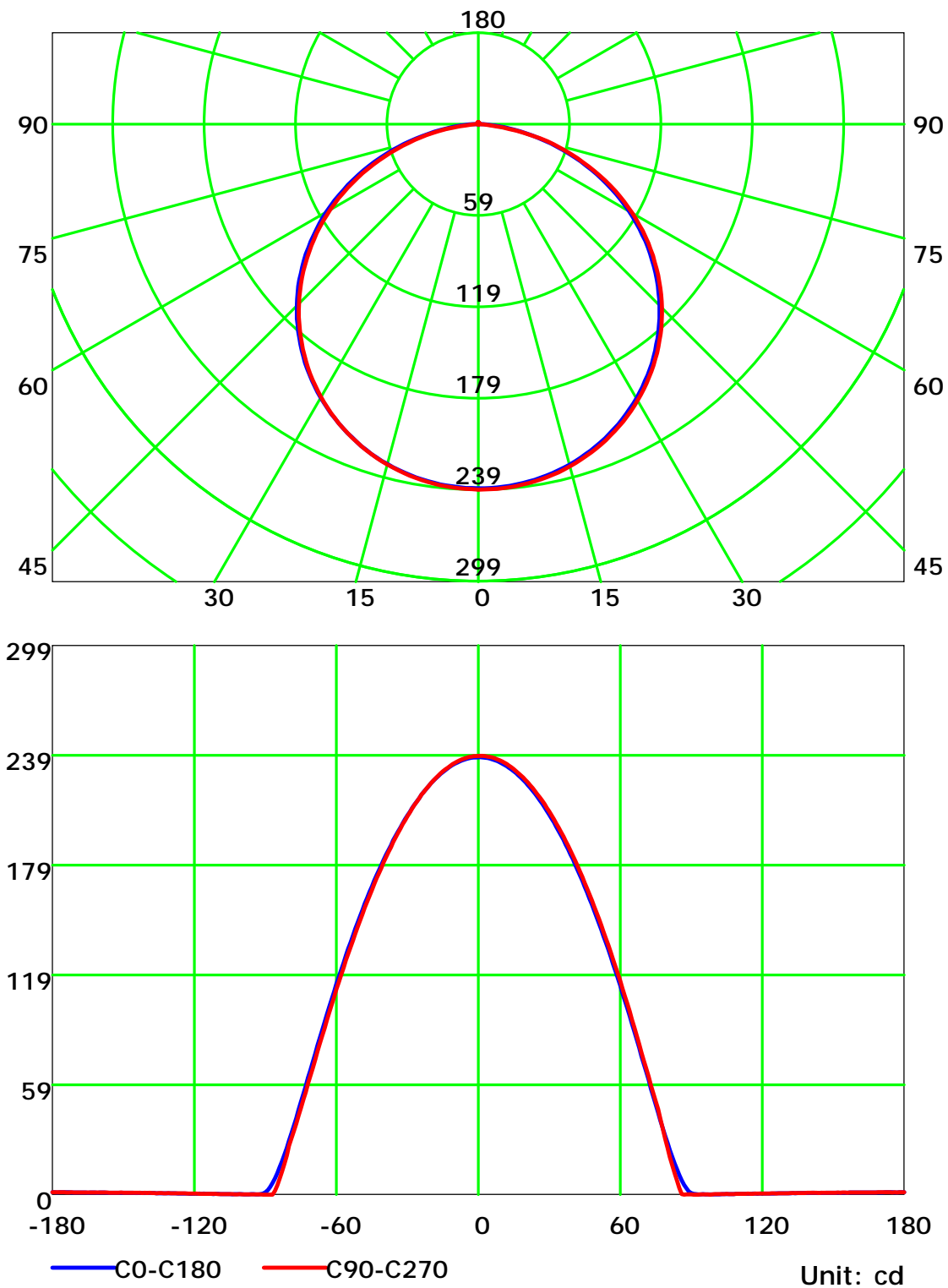
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Aaron

Gamma Plane (°):0.0-180.0:1.0

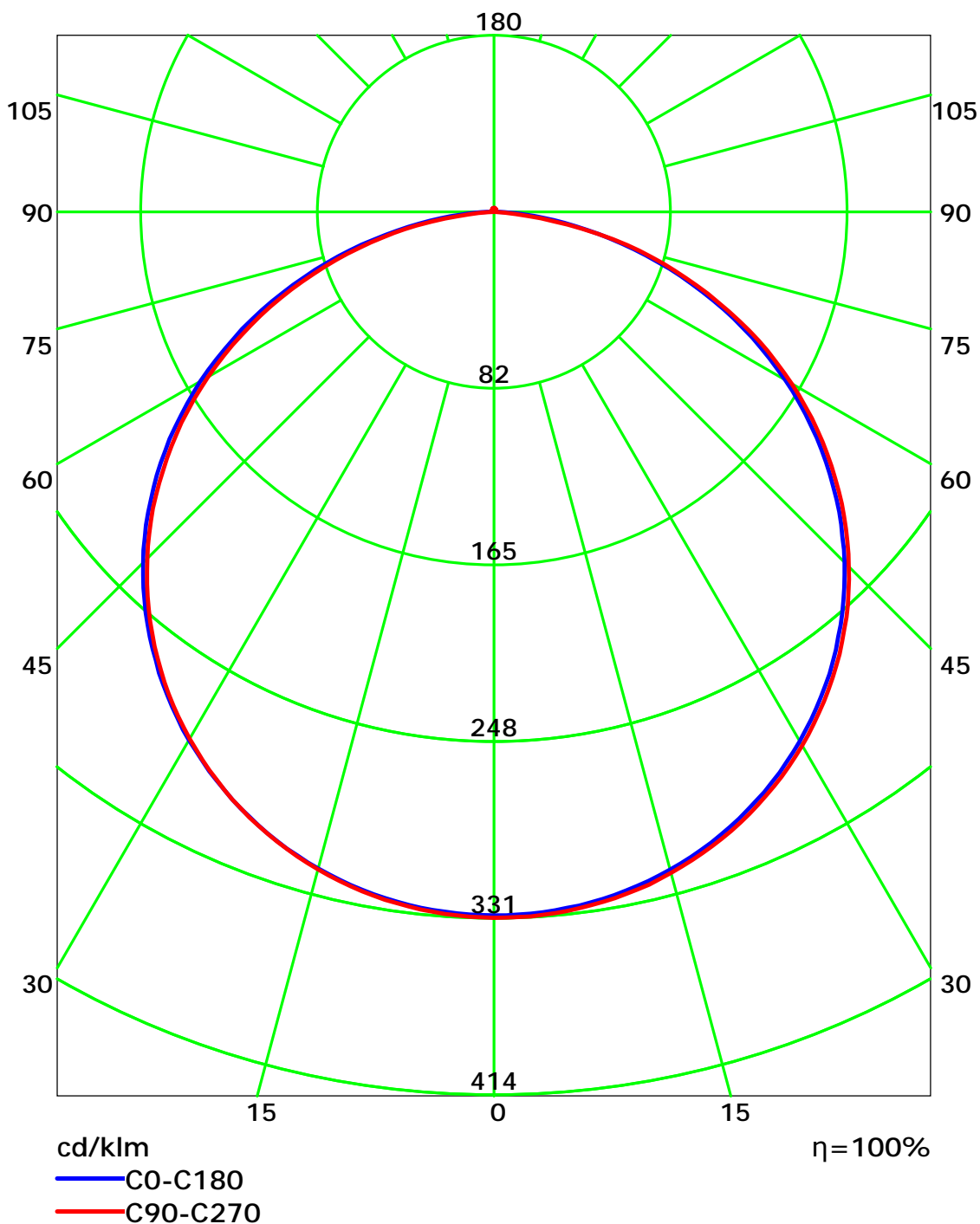
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Aaron

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

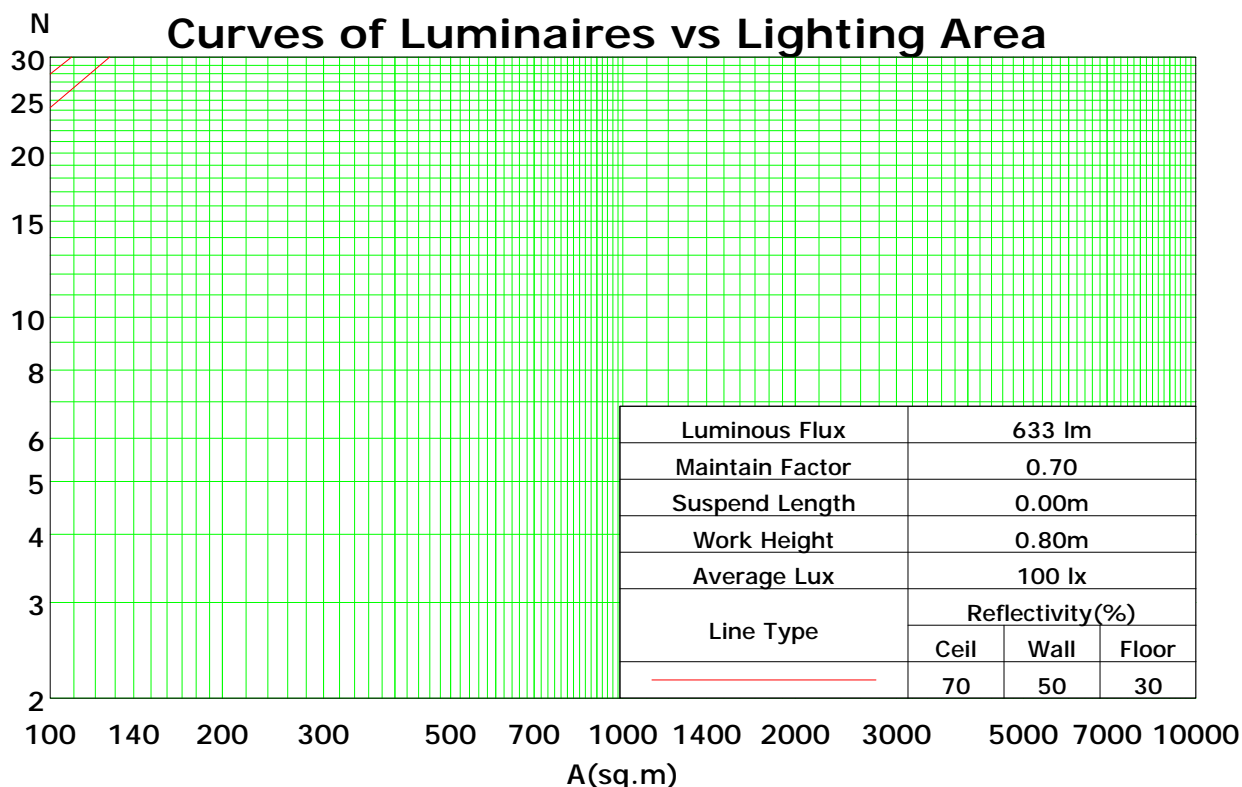
## Coefficients Of Utilization - Zonal Cavity Method

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	104	99	95	106	101	97	94	97	94	91	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	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	57
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	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	40	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): 1.29

Spacing Criteria (90-270): 1.29

Spacing Criteria (Diagonal): 1.41



C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Aaron

Gamma Plane (°):0.0-180.0:1.0

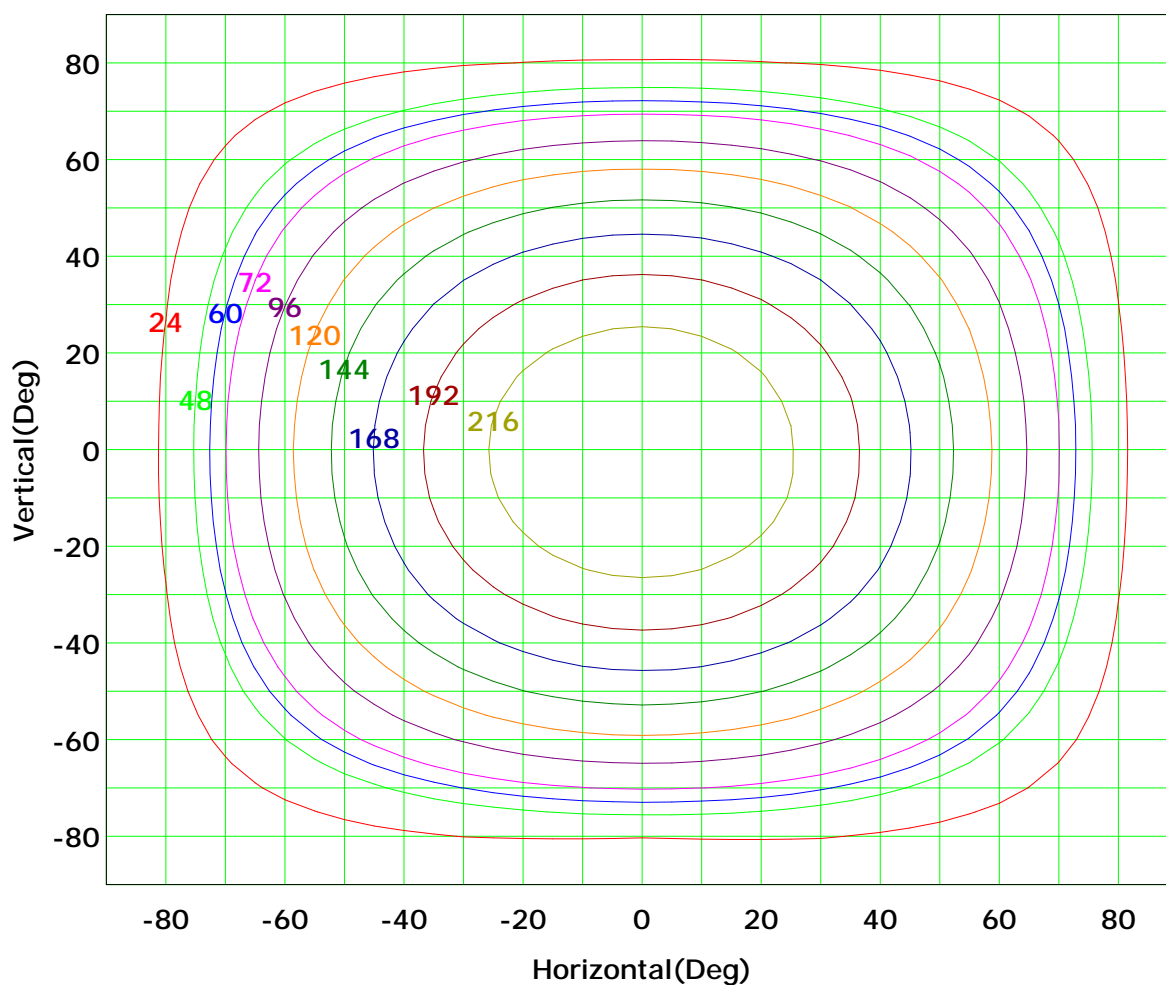
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Isocandela (rectangle)



Imax (100%): 240 cd

( 10%): 24 cd	( 20%): 48 cd
( 25%): 60 cd	( 30%): 72 cd
( 40%): 96 cd	( 50%): 120 cd
( 60%): 144 cd	( 70%): 168 cd
( 80%): 192 cd	( 90%): 216 cd

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Aaron

Gamma Plane (°):0.0-180.0:1.0

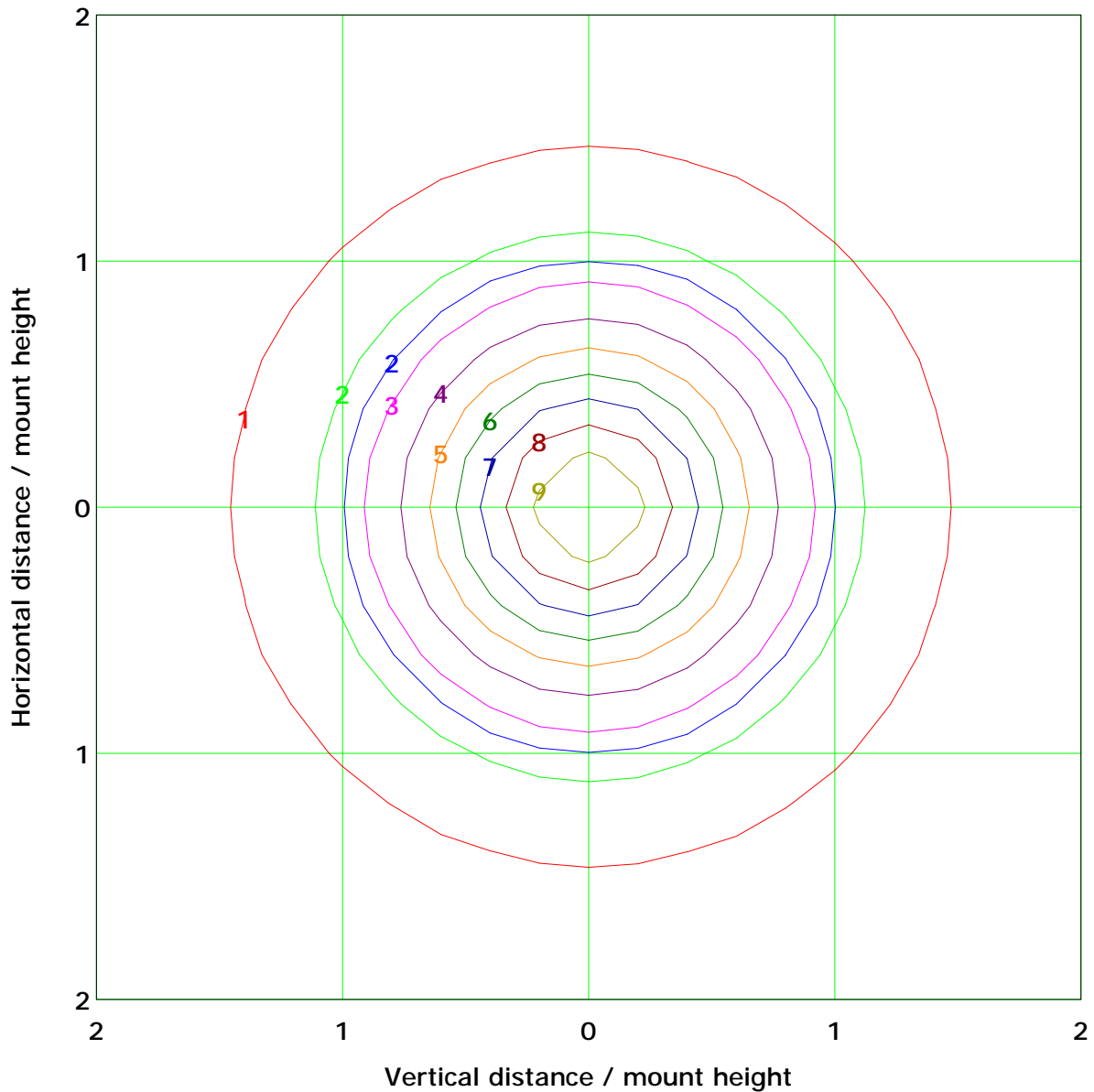
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 9.6 lx

( 10%): 1.0 lx  
( 25%): 2.4 lx  
( 40%): 3.8 lx  
( 60%): 5.8 lx  
( 80%): 7.7 lx

( 20%): 1.9 lx  
( 30%): 2.9 lx  
( 50%): 4.8 lx  
( 70%): 6.7 lx  
( 90%): 8.6 lx

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Aaron

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1800B

Distance: 9.028 m

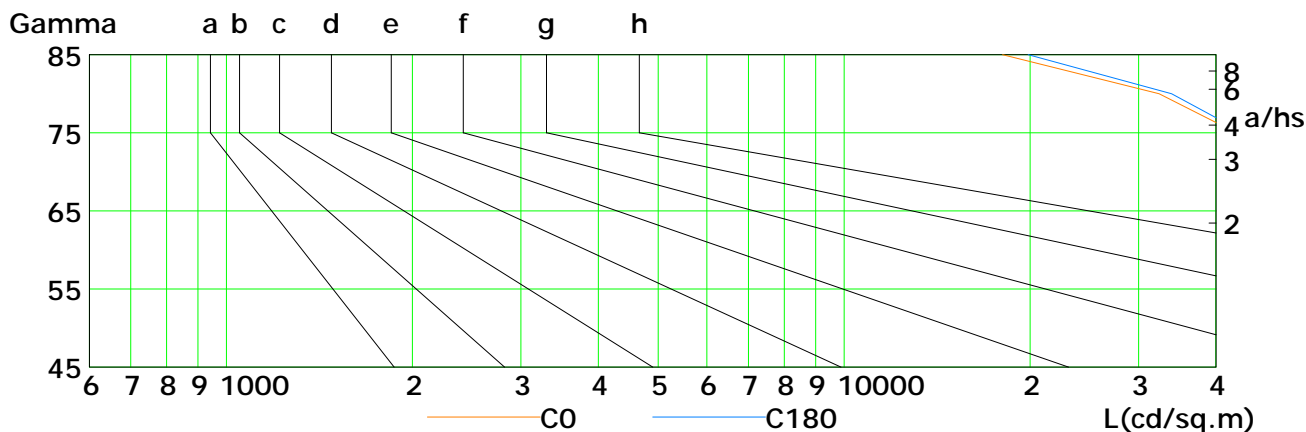
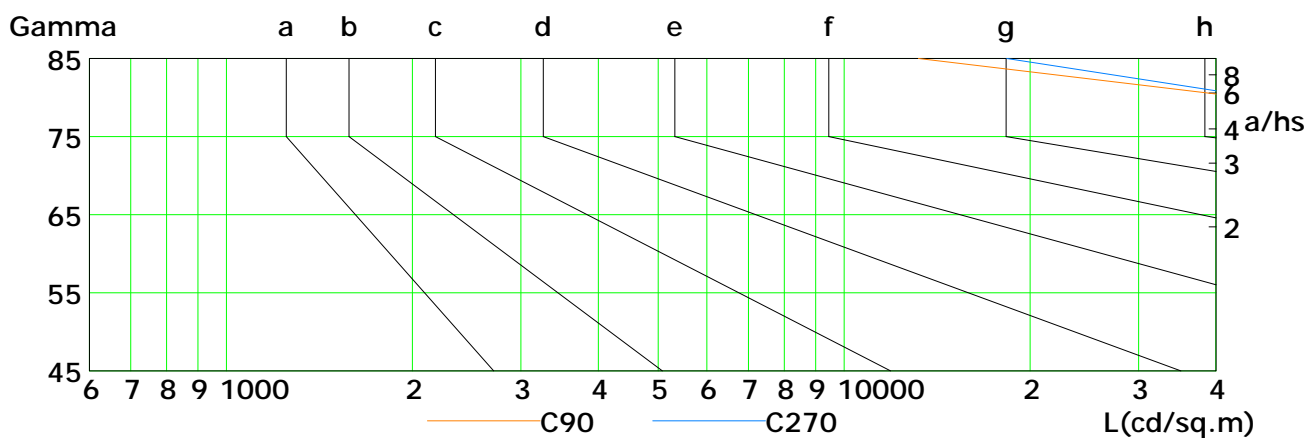
Humidity: 60%

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	67557	65872	63755	60795	56777	51141	43242	32372	18070
C90	74984	74567	73816	72483	70198	66231	60904	44967	13190
C180	67613	66015	64041	61290	57434	51958	44517	33888	19877
C270	73292	72518	71326	69623	66848	62680	56488	47266	18348

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Aaron

Gamma Plane (°):0.0-180.0: 1.0

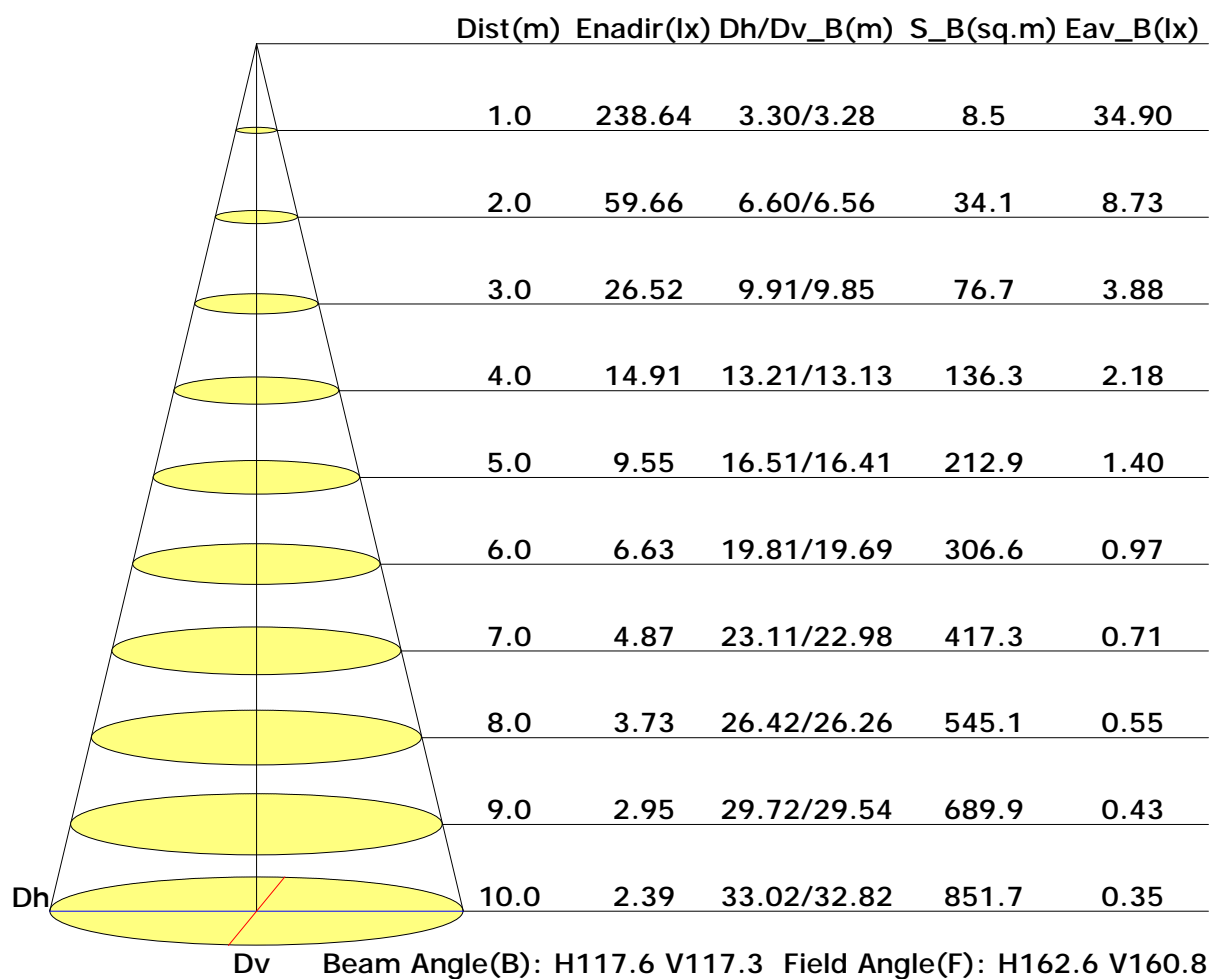
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Illuminance at a Distance



C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Aaron

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1800B

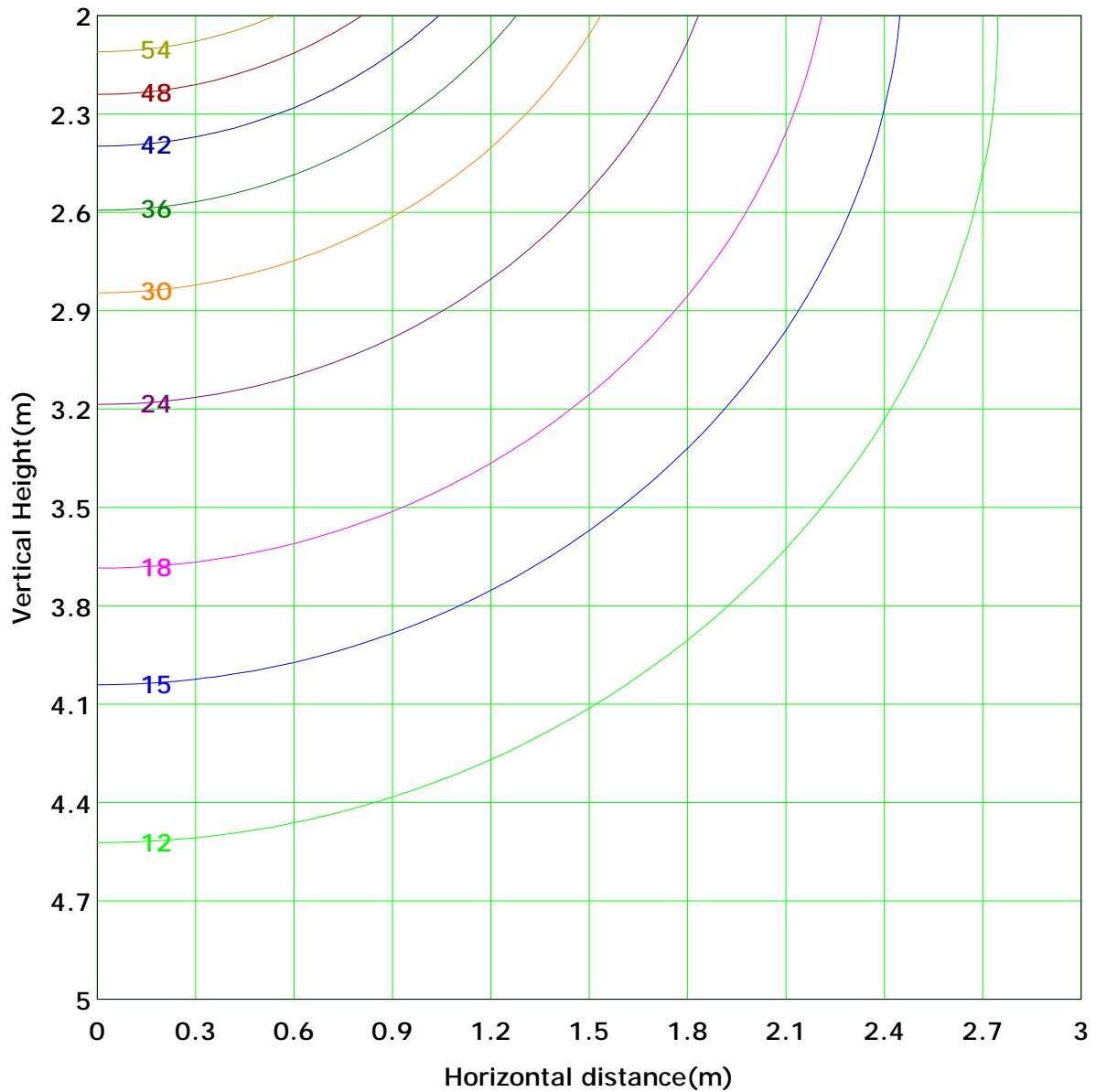
Distance: 9.028 m

Humidity: 60%

Inspector:



## Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 59.7 lx
( 10%): 6.0 lx	( 20%): 11.9 lx	
( 25%): 14.9 lx	( 30%): 17.9 lx	
( 40%): 23.9 lx	( 50%): 29.8 lx	
( 60%): 35.8 lx	( 70%): 41.8 lx	
( 80%): 47.7 lx	( 90%): 53.7 lx	

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Aaron

Gamma Plane (°):0.0-180.0:1.0

Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Area Flux Table

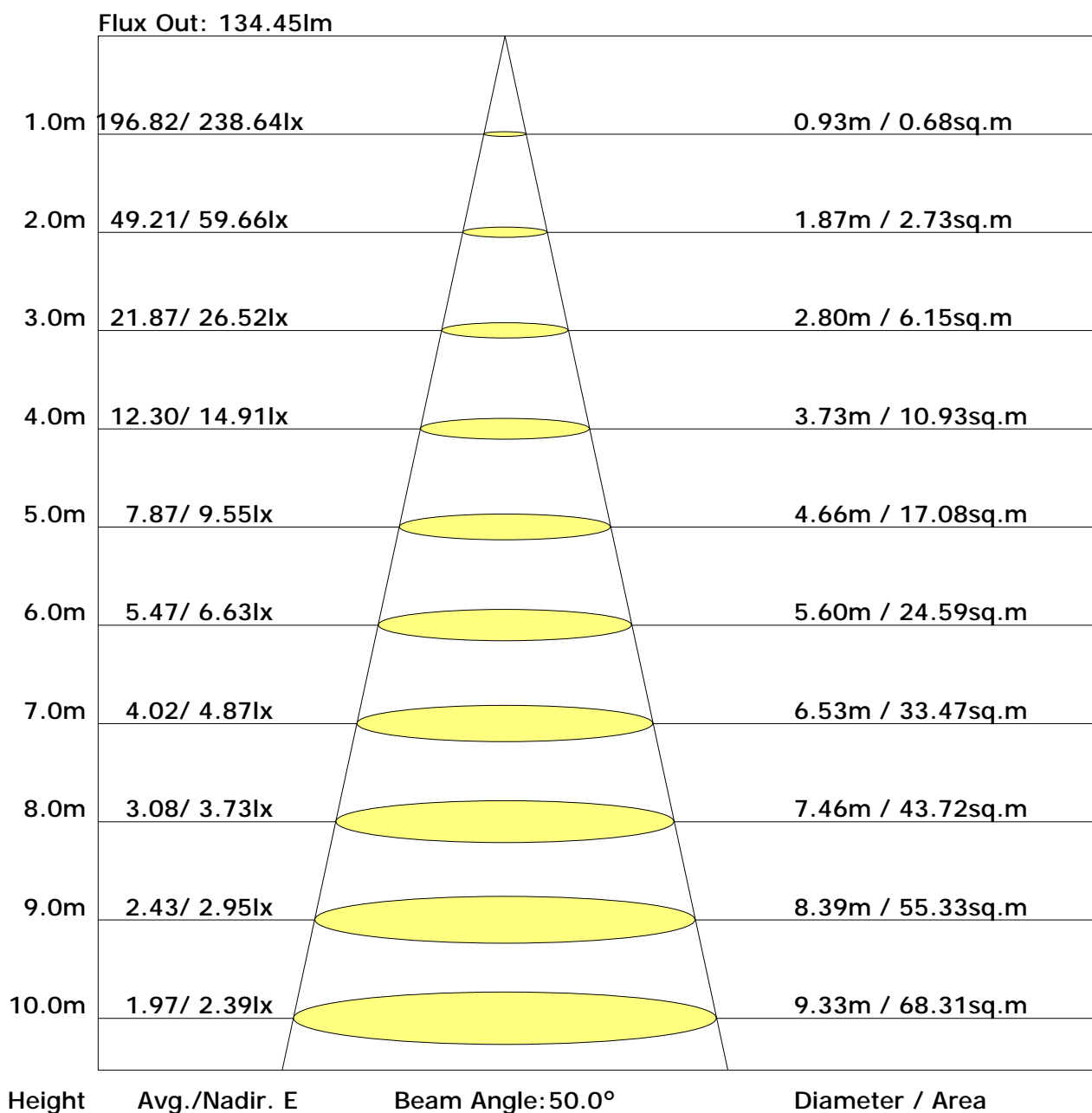
Unit: lm

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	0.0	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.1
		0.0	0.1	0.2	0.4	0.7	0.9	1.2	1.3	1.4	1.4	1.3	1.1	0.9	0.6	0.4	0.2	0.1	0.0	0.0	0.5	0.1
		0.0	0.1	0.4	0.8	1.3	1.8	2.2	2.6	2.7	2.7	2.6	2.2	1.8	1.3	0.8	0.4	0.1	0.0	0.0	0.5	0.1
		0.0	0.2	0.6	1.2	1.9	2.6	3.2	3.7	4.0	4.0	3.7	3.2	2.6	1.9	1.2	0.7	0.4	0.1	0.0	0.5	0.1
		0.0	0.3	0.8	1.6	2.4	3.3	4.1	4.7	5.0	5.0	4.7	4.1	3.3	2.4	1.6	0.8	0.3	0.1	0.0	0.5	0.1
		0.0	0.3	1.0	1.9	2.9	3.9	4.8	5.5	5.9	5.9	5.5	4.8	3.9	2.9	1.9	1.0	0.6	0.2	0.0	0.5	0.1
		0.0	0.4	1.1	2.1	3.2	4.4	5.4	6.1	6.5	6.5	6.1	5.4	4.4	3.2	2.1	1.1	0.4	0.1	0.0	0.5	0.1
		0.0	0.4	1.2	2.3	3.5	4.7	5.8	6.5	7.0	7.0	6.5	5.8	4.7	3.5	2.3	1.2	0.4	0.1	0.0	0.5	0.1
		0.0	0.4	1.2	2.3	3.6	4.8	5.9	6.7	7.2	7.2	6.8	6.0	4.9	3.6	2.3	1.2	0.4	0.1	0.0	0.5	0.1
		0.0	0.4	1.2	2.3	3.6	4.9	6.0	6.8	7.2	7.2	6.8	6.0	4.9	3.6	2.3	1.2	0.4	0.1	0.0	0.5	0.1
		0.0	0.4	1.2	2.3	3.5	4.7	5.8	6.6	7.0	7.0	6.6	5.8	4.7	3.5	2.3	1.2	0.4	0.1	0.0	0.5	0.1
		0.0	0.4	1.1	2.1	3.3	4.5	5.5	6.2	6.6	6.6	6.2	5.4	4.4	3.3	2.1	1.1	0.4	0.1	0.0	0.5	0.1
		0.0	0.3	1.0	1.9	3.0	4.0	4.9	5.6	6.0	6.0	5.6	4.9	4.0	2.9	1.9	1.0	0.3	0.1	0.0	0.5	0.1
		0.0	0.3	0.8	1.6	2.5	3.4	4.2	4.8	5.1	5.1	4.8	4.2	3.4	2.5	1.6	0.8	0.3	0.1	0.0	0.5	0.1
		0.0	0.2	0.6	1.2	2.0	2.7	3.4	3.8	4.1	4.1	3.8	3.3	2.7	1.9	1.2	0.6	0.2	0.0	0.5	0.1	0.1
		0.0	0.1	0.4	0.8	1.3	1.9	2.3	2.7	2.9	2.9	2.7	2.3	1.8	1.3	0.8	0.4	0.1	0.0	0.5	0.1	0.1
		0.0	0.1	0.2	0.4	0.7	1.0	1.2	1.4	1.5	1.5	1.4	1.2	1.0	0.7	0.4	0.2	0.1	0.0	0.5	0.1	0.1
		0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.1	0.1	0.0	0.0	0.5	0.1	0.1
		0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.1	0.1	0.0	0.0	0.5	0.1	0.1
		0.0	0.5	4.4	13.0	25.4	39.7	54.1	66.6	75.7	80.5	80.5	75.6	66.4	53.8	39.4	25.1	12.8	4.2	0.5	718	709
		0.1	3.8	12.4	24.8	39.2	53.5	66.1	75.2	80.1	80.0	75.0	65.8	53.2	38.9	24.5	12.2	3.6	0.1			

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

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	28.1	29.7	28.4	30.0	30.4	27.9	29.5	28.3	29.9	30.2
3H	29.9	31.4	30.3	31.7	32.1	29.6	31.1	30.0	31.5	31.8
4H	30.6	32.0	31.0	32.3	32.7	30.2	31.6	30.6	32.0	32.4
6H	31.0	32.3	31.4	32.7	33.1	30.6	31.9	31.0	32.2	32.7
8H	31.1	32.4	31.6	32.8	33.2	30.6	31.9	31.1	32.3	32.7
12H	31.2	32.4	31.7	32.8	33.2	30.6	31.8	31.1	32.2	32.6
X=4H Y=2H	28.7	30.1	29.1	30.4	30.8	28.5	29.9	29.0	30.3	30.7
3H	30.7	31.9	31.1	32.3	32.7	30.5	31.7	30.9	32.1	32.5
4H	31.5	32.5	31.9	33.0	33.4	31.2	32.3	31.6	32.7	33.1
6H	32.0	33.0	32.5	33.4	33.9	31.7	32.6	32.1	33.0	33.5
8H	32.2	33.1	32.7	33.5	34.0	31.7	32.6	32.2	33.1	33.5
12H	32.3	33.1	32.8	33.6	34.1	31.7	32.5	32.2	33.0	33.5
X=8H Y=4H	31.7	32.6	32.2	33.0	33.5	31.5	32.4	32.0	32.8	33.3
6H	32.3	33.1	32.9	33.6	34.1	32.0	32.8	32.6	33.3	33.8
8H	32.6	33.2	33.1	33.7	34.2	32.2	32.8	32.7	33.3	33.8
12H	32.7	33.3	33.3	33.8	34.4	32.2	32.8	32.8	33.3	33.9
X=12H Y=4H	31.7	32.5	32.2	33.0	33.5	31.5	32.3	32.0	32.8	33.3
6H	32.4	33.1	32.9	33.5	34.1	32.1	32.8	32.6	33.2	33.8
8H	32.7	33.2	33.2	33.7	34.3	32.3	32.9	32.8	33.4	33.9

Calculate in accordance with CIE 190:2010

C Plane (°):0.0-360.0: 30.0

Test Lab:

Test Type: TYPE C

Temperature: 25

Operator: Aaron

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	0.92	0.95	1.00	1.03
	0.30		0.47	0.58	0.66	0.72	0.80	0.86	0.90	0.96	0.99
	0.20		0.41	0.52	0.60	0.66	0.75	0.81	0.86	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	0.99
	0.30		0.46	0.57	0.64	0.70	0.78	0.83	0.87	0.92	0.96
	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	0.85	0.88	0.92	0.95
	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	0.87	0.90
0.00	0.00	0.00	0.38	0.48	0.55	0.61	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	0.62	0.50	0.41	0.35	0.27	0.22
	0.30		0.85	0.72	0.62	0.55	0.45	0.38	0.33	0.26	0.21
	0.20		0.73	0.63	0.55	0.49	0.41	0.35	0.30	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	0.53	0.43	0.36	0.31	0.25	0.20
	0.20		0.72	0.62	0.54	0.48	0.40	0.34	0.30	0.23	0.19
0.30	0.50	0.20	0.95	0.78	0.66	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	0.19
	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	0.14
<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>											