

Report No.:

Test Time: 2018/10/31 10:42

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category: MINI WALL WAHSER

Luminaire Description: MINIRGBW2424RGB6535TS (R)

Luminous Length (mm): 500

Luminous Width (mm): 50

Luminous Height (mm): 70

Voltage: 24.0 V

Current: 0.268 A

Power: 6.43 W

Power Factor: 1.000

## Photometric Results

CIE Class: Direct

Measurement Flux: 252.3 lm

Downward Ratio: 97%

Horizontal Diffuse Angle(50%): H34.3

Vertical Diffuse Angle(50%): V34.3

Luminaire Efficacy Rating (LER): 39

Max. Intensity: 540.67 cd

Total Rated Lamp Lumens: 252.3 lm

Efficiency: 100%

Upward Ratio: 3%

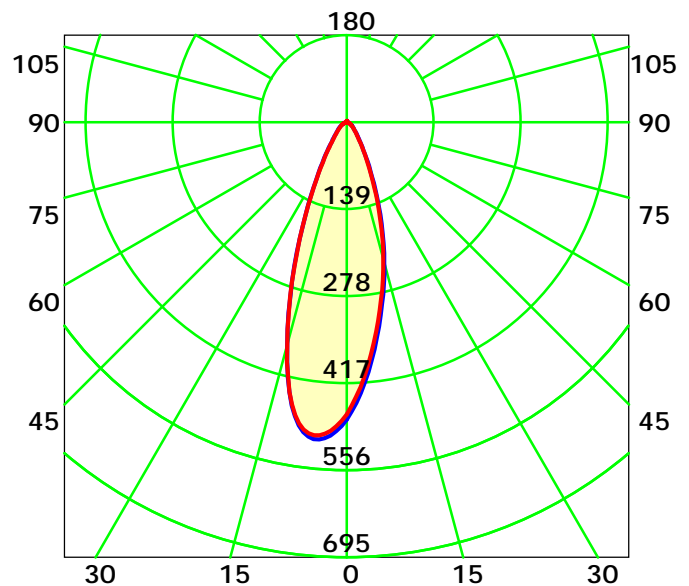
Central Intensity: 475.11 cd

Pos of Max. Intensity: H210 V7

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 34.3° 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

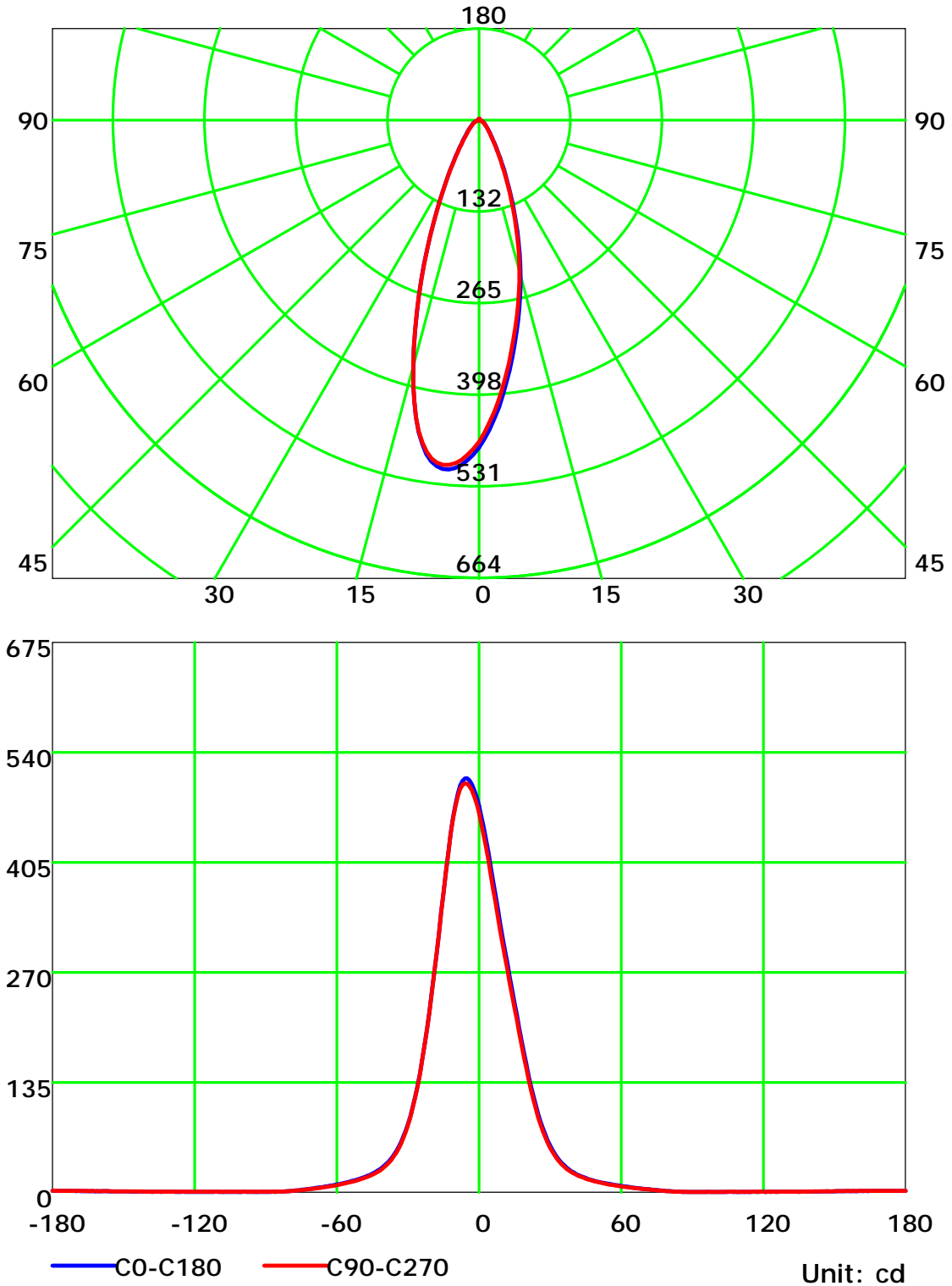
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

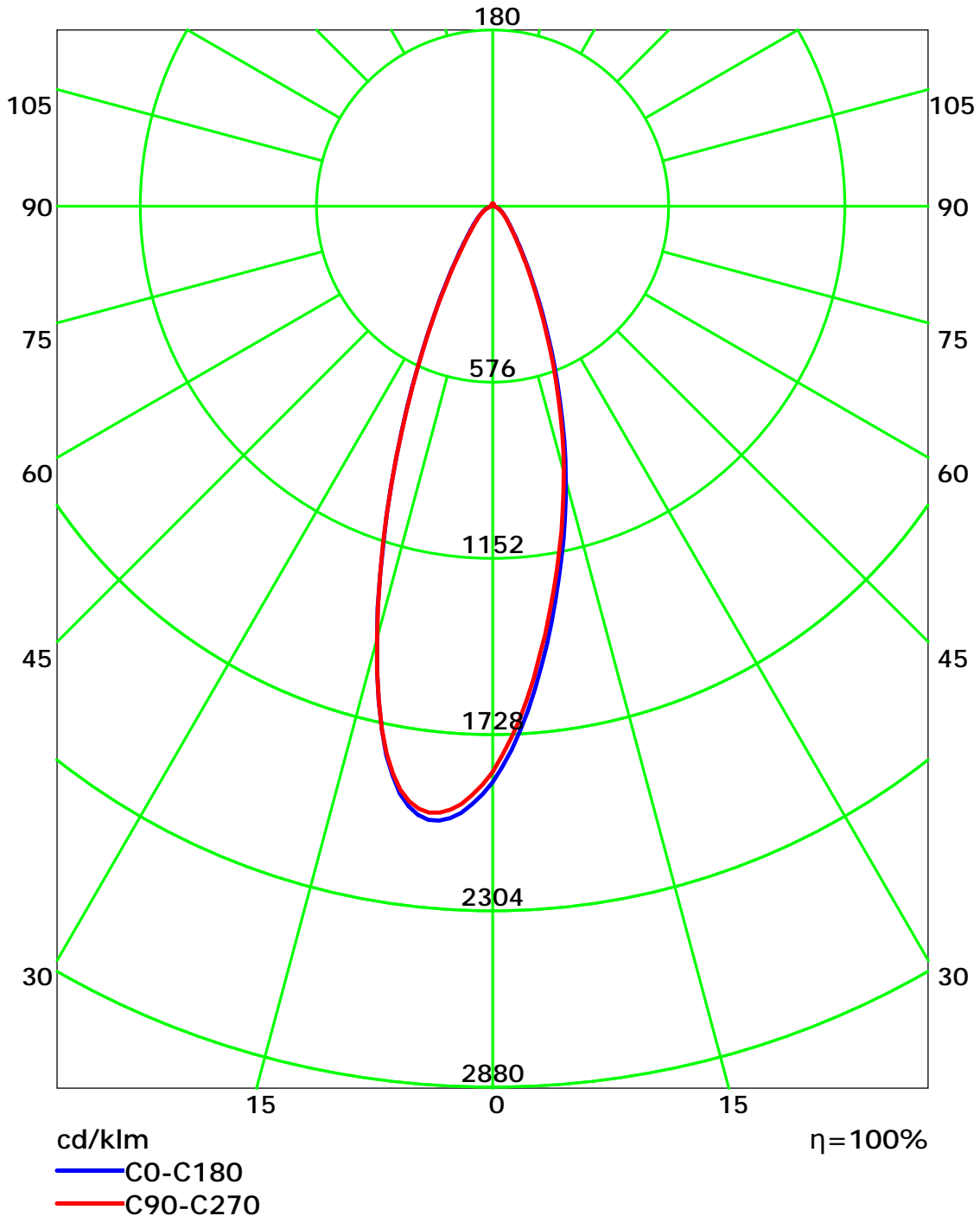
## Luminous Intensity Distribution Curve



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:

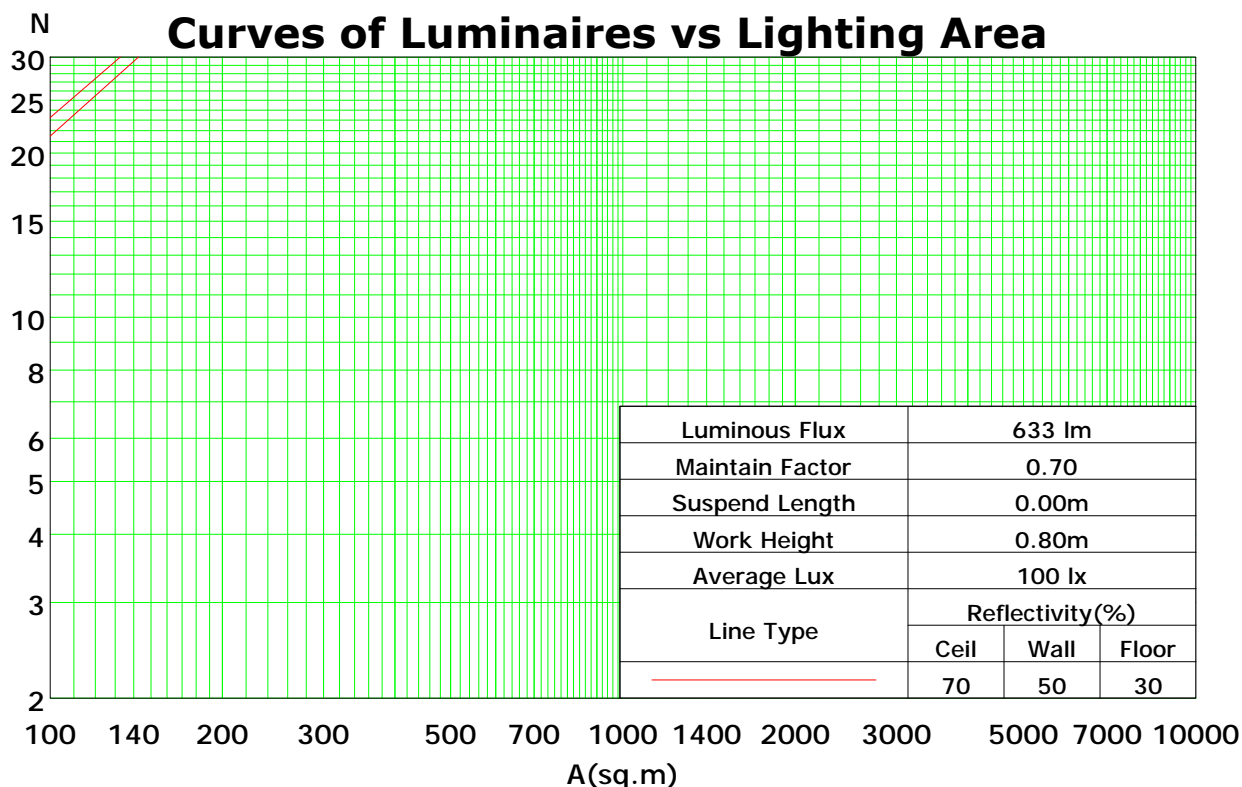
## Coefficients Of Utilization - Zonal Cavity Method

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	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	97
1	112	109	107	104	109	107	104	102	102	100	99	98	96	95	94	93	92	90
2	106	101	97	93	104	99	95	92	96	92	90	92	90	87	89	87	85	83
3	101	94	89	85	99	93	88	84	90	86	82	87	84	81	84	81	79	77
4	96	88	83	78	94	87	82	78	84	80	76	82	78	75	80	77	74	72
5	91	83	77	73	90	82	76	72	80	75	71	78	74	70	76	72	70	68
6	87	78	72	68	85	77	72	68	75	71	67	74	70	66	72	69	66	64
7	83	74	68	64	82	73	68	64	72	67	63	70	66	63	69	65	62	61
8	80	70	64	60	78	70	64	60	68	63	60	67	63	59	66	62	59	58
9	76	67	61	57	75	66	61	57	65	60	57	64	60	56	63	59	56	55
10	73	64	58	55	72	63	58	54	62	57	54	61	57	54	61	56	54	52

Spacing Criteria (0-180): 0.59

Spacing Criteria (90-270): 0.60

Spacing Criteria (Diagonal): 0.60



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

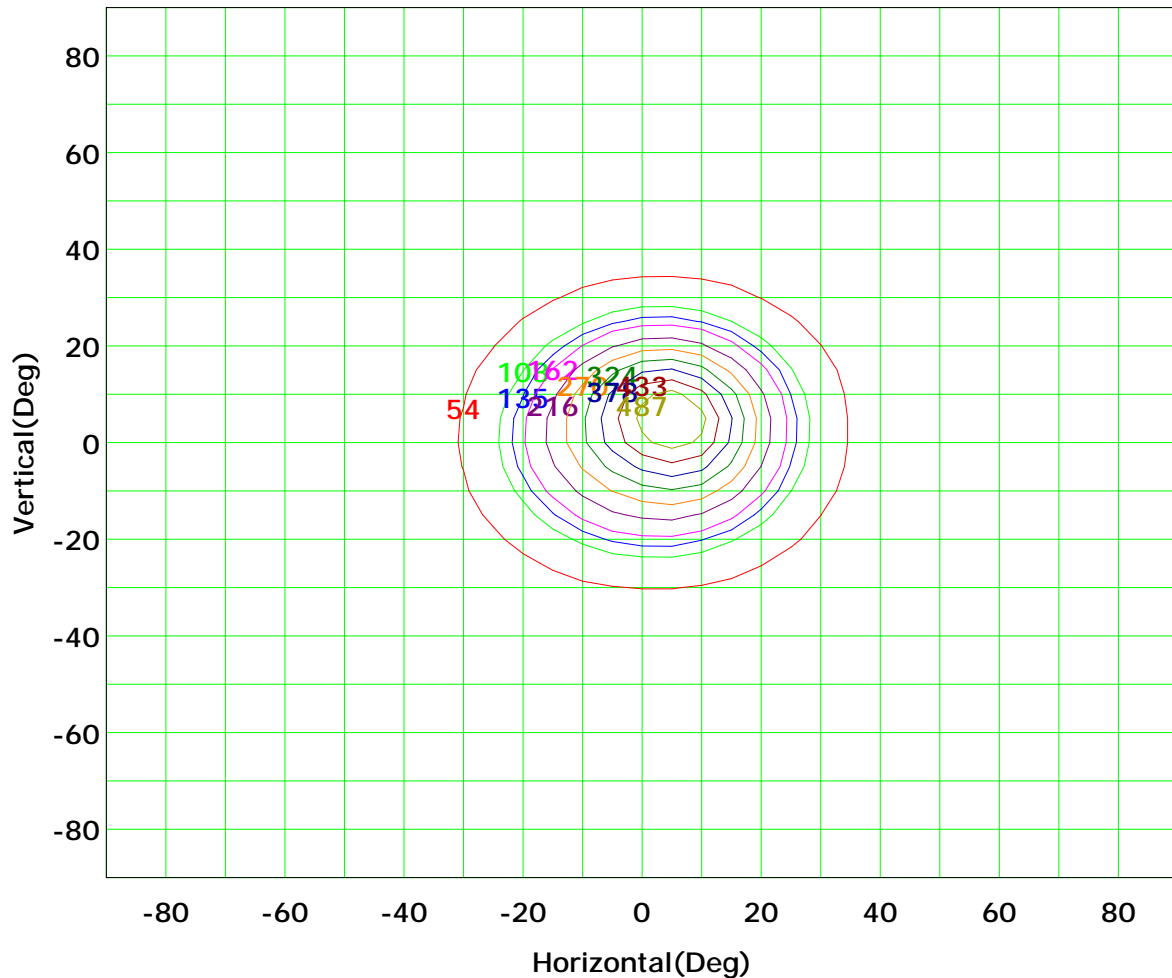
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Isocandela (rectangle)



I<sub>max</sub> (100%): 541 cd

( 10%): 54 cd	( 20%): 108 cd
( 25%): 135 cd	( 30%): 162 cd
( 40%): 216 cd	( 50%): 270 cd
( 60%): 324 cd	( 70%): 378 cd
( 80%): 433 cd	( 90%): 487 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

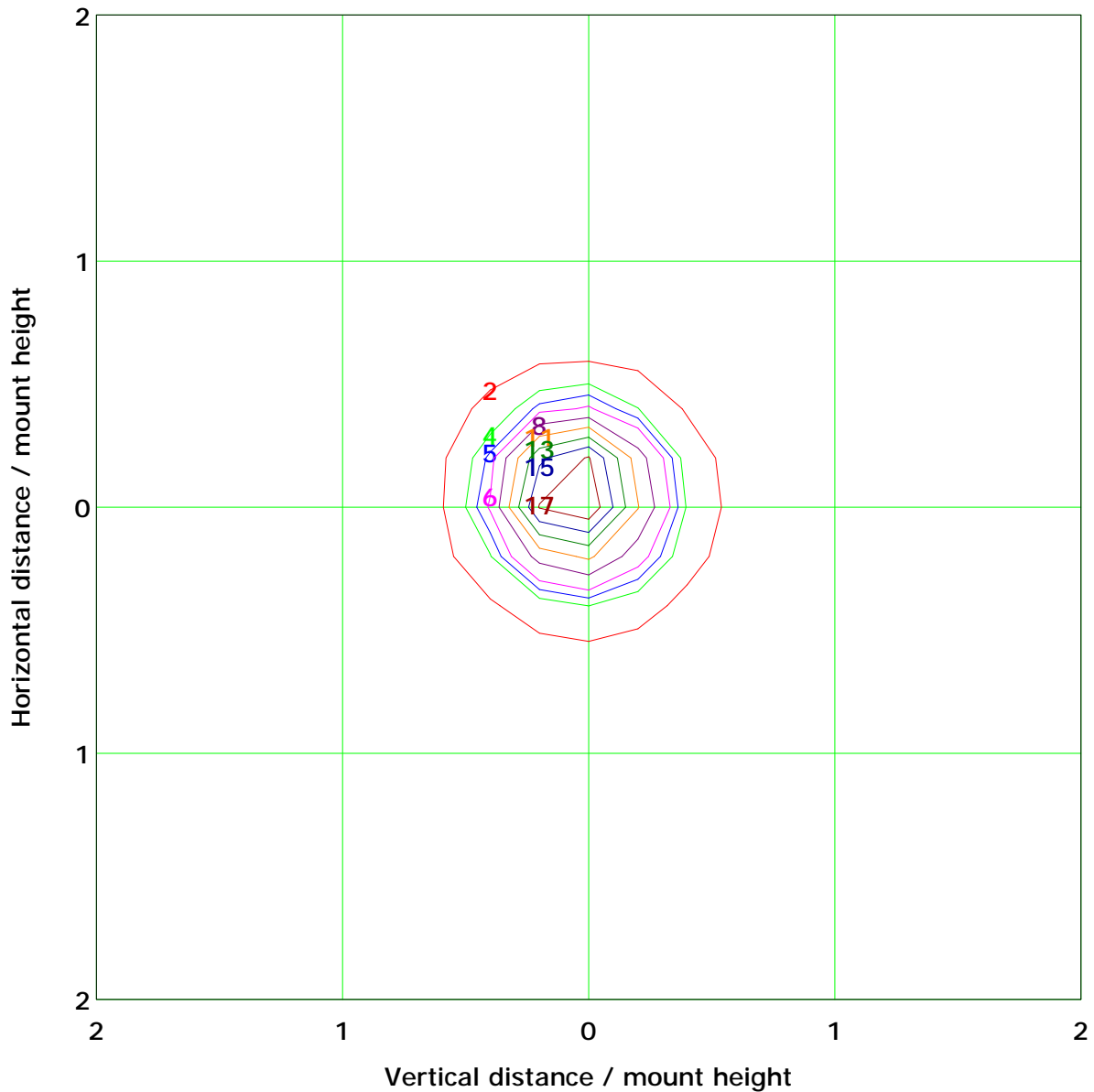
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 21.2 lx

( 10%): 2.1 lx	( 20%): 4.2 lx
( 25%): 5.3 lx	( 30%): 6.4 lx
( 40%): 8.5 lx	( 50%): 10.6 lx
( 60%): 12.7 lx	( 70%): 14.8 lx
( 80%): 16.9 lx	( 90%): 19.1 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

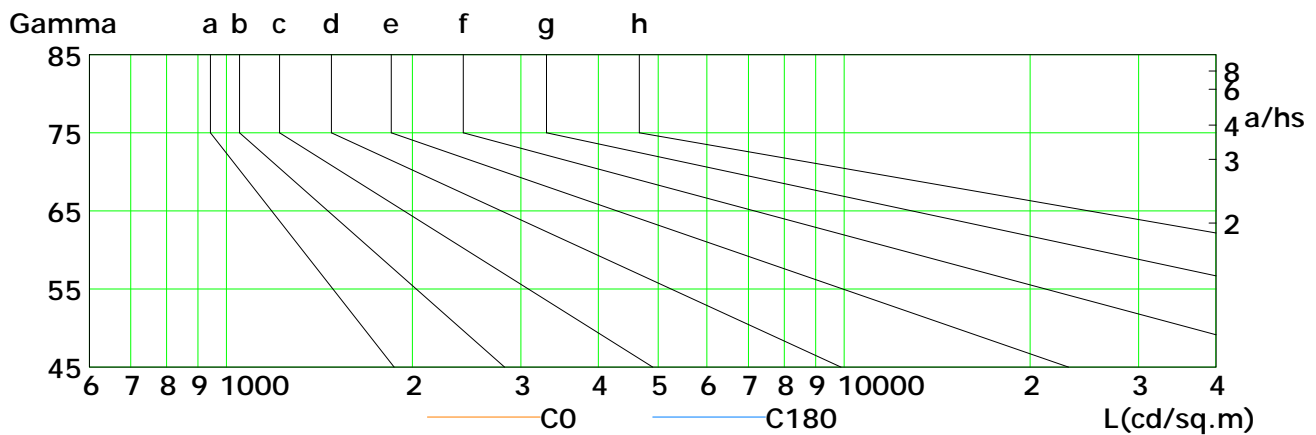
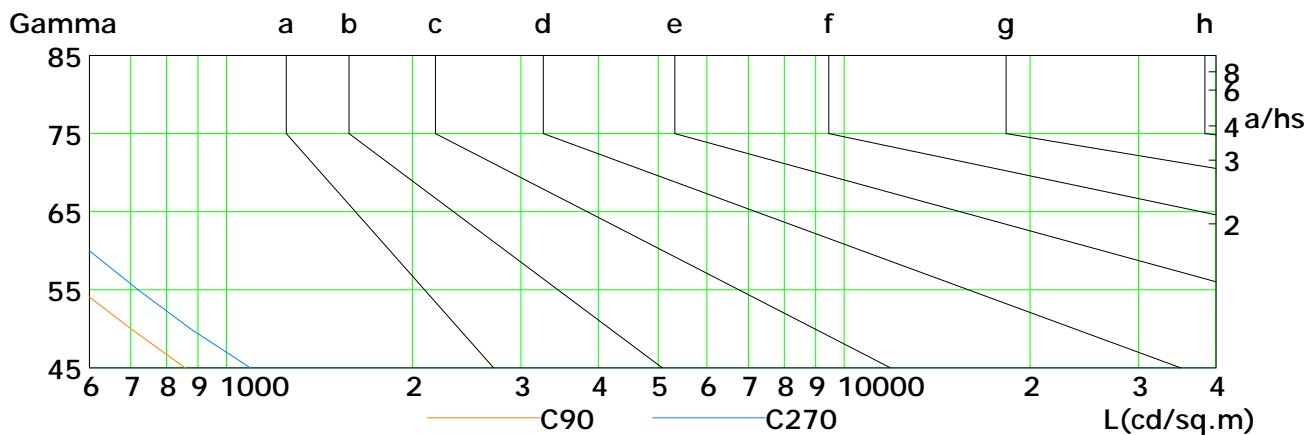
Humidity: 60%

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	425	316	248	194	149	111	75	46	30
C90	857	701	578	489	428	355	292	223	185
C180	553	408	308	234	176	128	84	51	29
C270	1094	875	720	600	496	404	324	248	205

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

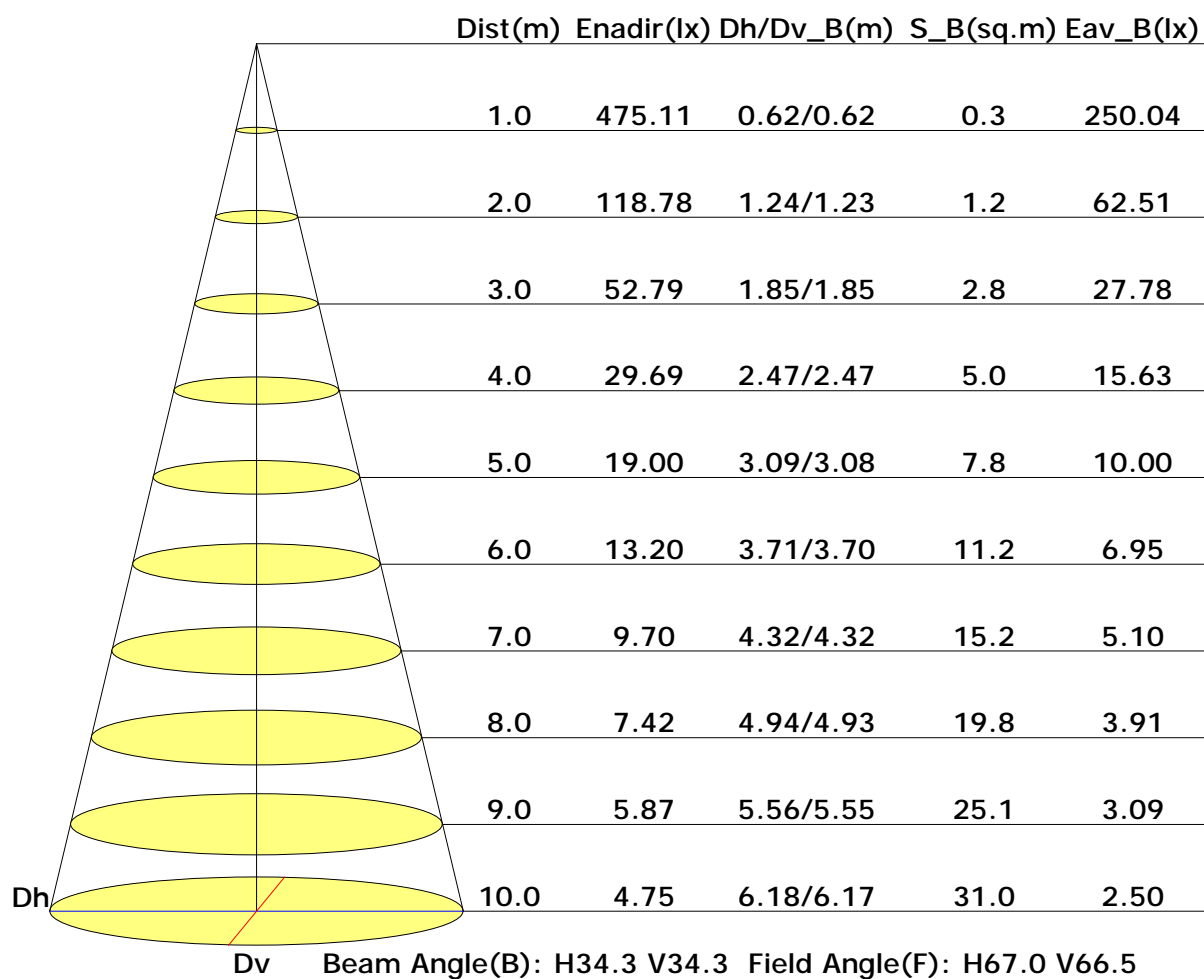
Test Device: GPM-1800B

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

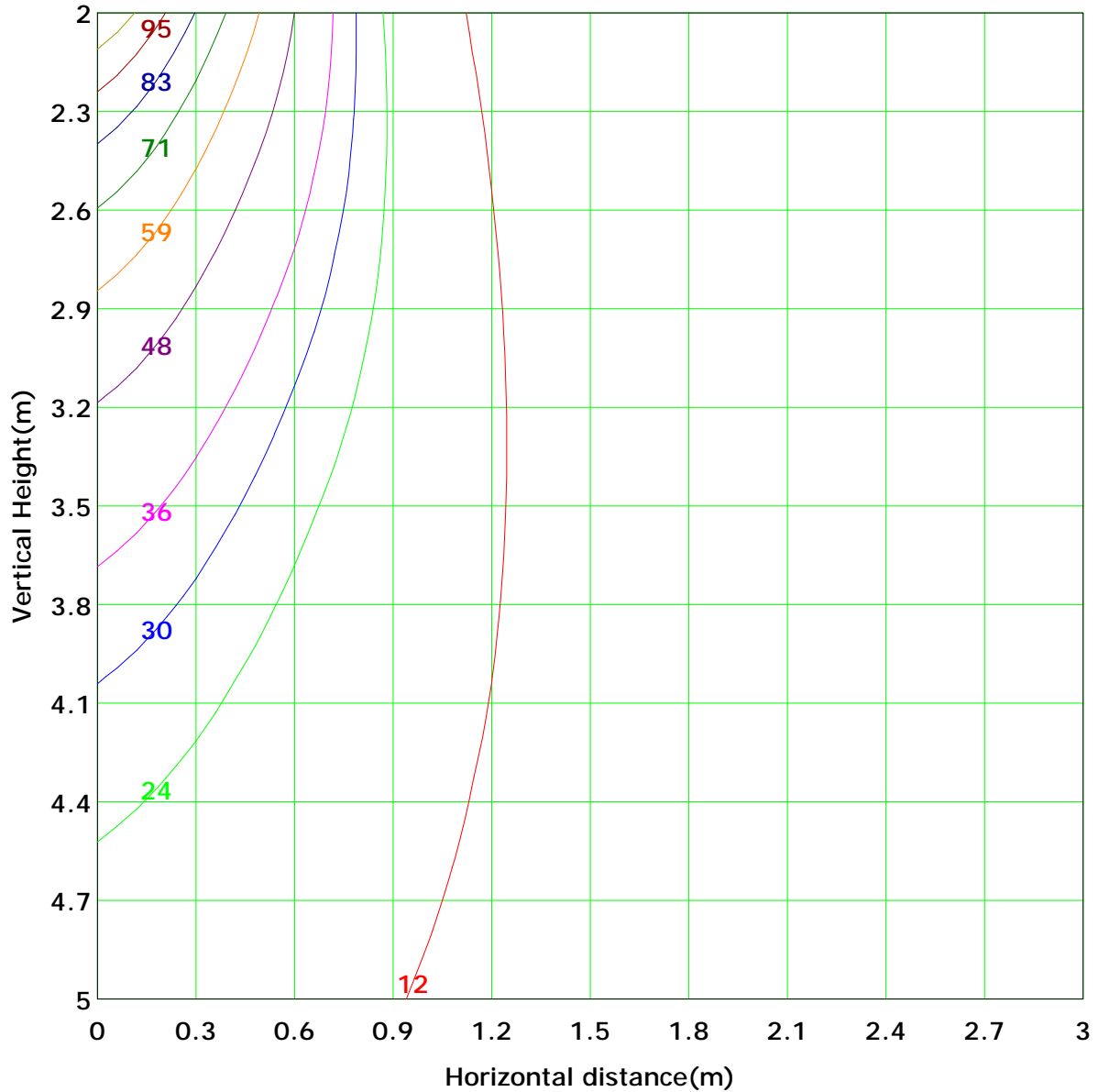
Distance: 9.028 m

Humidity: 60%

Inspector:



## Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 118.8 lx
( 10%): 11.9 lx	( 20%): 23.8 lx	
( 25%): 29.7 lx	( 30%): 35.6 lx	
( 40%): 47.5 lx	( 50%): 59.4 lx	
( 60%): 71.3 lx	( 70%): 83.1 lx	
( 80%): 95.0 lx	( 90%): 106.9 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%

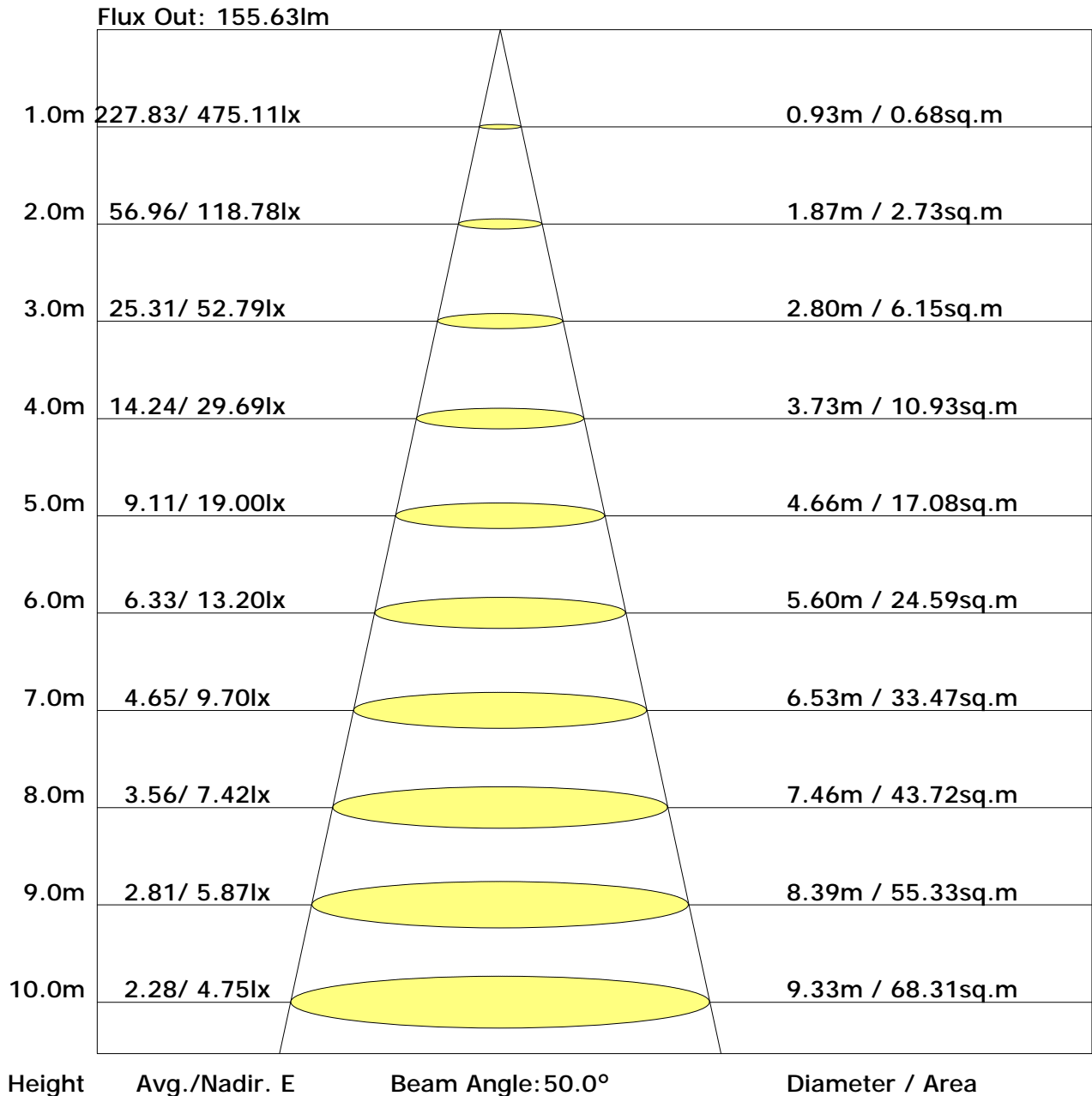
Inspector:

## Unit: 1m

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	8.8	9.9	9.2	10.3	10.7	6.7	7.8	7.2	8.2	8.6
3H	10.1	11.0	10.5	11.4	11.9	7.7	8.6	8.1	9.0	9.4
4H	10.5	11.4	11.0	11.8	12.2	7.9	8.8	8.4	9.2	9.7
6H	10.8	11.6	11.2	12.0	12.5	8.0	8.8	8.5	9.3	9.7
8H	10.8	11.6	11.3	12.0	12.5	8.0	8.8	8.5	9.2	9.7
12H	10.9	11.6	11.4	12.1	12.6	8.0	8.7	8.5	9.2	9.7
X=4H Y=2H	9.0	9.8	9.4	10.2	10.7	7.2	8.1	7.6	8.5	8.9
3H	10.3	11.0	10.8	11.5	12.0	8.2	9.0	8.7	9.4	9.9
4H	10.8	11.4	11.3	11.9	12.4	8.6	9.2	9.0	9.7	10.2
6H	11.1	11.7	11.7	12.2	12.7	8.7	9.3	9.3	9.8	10.3
8H	11.3	11.8	11.8	12.3	12.8	8.8	9.3	9.3	9.8	10.3
12H	11.3	11.8	11.9	12.3	12.9	8.8	9.2	9.3	9.8	10.3
X=8H Y=4H	10.8	11.3	11.3	11.8	12.3	8.7	9.2	9.2	9.7	10.2
6H	11.2	11.6	11.7	12.1	12.7	8.9	9.3	9.5	9.9	10.5
8H	11.3	11.7	11.9	12.3	12.8	9.0	9.4	9.6	9.9	10.5
12H	11.5	11.8	12.0	12.3	13.0	9.1	9.4	9.6	9.9	10.6
X=12H Y=4H	10.7	11.2	11.3	11.7	12.3	8.7	9.1	9.2	9.7	10.2
6H	11.1	11.5	11.7	12.0	12.6	8.9	9.3	9.5	9.8	10.4
8H	11.3	11.6	11.9	12.2	12.8	9.0	9.3	9.6	9.9	10.5

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 = 0.75								
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	0.83	0.89	0.93	0.96	1.00	1.03	1.05	1.08	1.09
	0.30		0.78	0.84	0.89	0.92	0.97	1.00	1.02	1.05	1.07
	0.20		0.74	0.81	0.85	0.89	0.94	0.97	1.00	1.03	1.05
0.50	0.50	0.20	0.81	0.87	0.91	0.93	0.97	1.00	1.01	1.03	1.05
	0.30		0.77	0.83	0.87	0.90	0.94	0.97	0.99	1.01	1.03
	0.20		0.74	0.80	0.84	0.87	0.91	0.95	0.97	1.00	1.02
0.30	0.50	0.20	0.80	0.85	0.88	0.91	0.94	0.96	0.98	0.99	1.00
	0.30		0.76	0.81	0.85	0.88	0.92	0.94	0.96	0.98	0.99
	0.20		0.73	0.79	0.83	0.86	0.89	0.92	0.94	0.96	0.98
0.00	0.00	0.00	0.71	0.76	0.80	0.82	0.86	0.88	0.90	0.91	0.93
<p>Rating: 6W 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 = 0.75								
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	0.61	0.50	0.42	0.36	0.29	0.24	0.21	0.16	0.13
	0.30		0.51	0.42	0.37	0.32	0.26	0.22	0.19	0.15	0.12
	0.20		0.43	0.37	0.33	0.29	0.24	0.20	0.18	0.14	0.12
0.50	0.50	0.20	0.57	0.46	0.39	0.34	0.27	0.26	0.19	0.14	0.12
	0.30		0.48	0.40	0.35	0.30	0.24	0.20	0.18	0.14	0.11
	0.20		0.42	0.36	0.31	0.27	0.22	0.19	0.17	0.13	0.11
0.30	0.50	0.20	0.54	0.43	0.37	0.31	0.25	0.20	0.17	0.13	0.11
	0.30		0.46	0.38	0.33	0.28	0.23	0.19	0.16	0.13	0.10
	0.20		0.41	0.34	0.30	0.26	0.21	0.18	0.15	0.12	0.10
0.00	0.00	0.00	0.27	0.22	0.18	0.16	0.12	0.10	0.09	0.07	0.05
<p>Rating: 6W 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 = 0.75								
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	0.16	0.18	0.19	0.20	0.21	0.22	0.22	0.23	0.24
	0.30		0.12	0.14	0.15	0.16	0.18	0.19	0.20	0.22	0.22
	0.20		0.09	0.11	0.12	0.14	0.16	0.17	0.18	0.20	0.21
0.50	0.50	0.20	0.15	0.17	0.18	0.19	0.20	0.21	0.22	0.22	0.23
	0.30		0.12	0.13	0.15	0.16	0.18	0.19	0.20	0.21	0.22
	0.20		0.09	0.11	0.12	0.13	0.15	0.17	0.18	0.19	0.20
0.30	0.50	0.20	0.15	0.16	0.18	0.18	0.19	0.20	0.21	0.21	0.22
	0.30		0.11	0.13	0.14	0.16	0.17	0.18	0.19	0.20	0.21
	0.20		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.19	0.20
0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Rating: 6W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											