

Report No.:

Test Time: 2018/10/10 09:31

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RIBBONLYTE

Luminous Length (mm): 500

Luminous Height (mm): 1

Current: 0.209 A

Power Factor: 1.000

Luminaire Description: RBMC20243.0B

Luminous Width (mm): 5

Voltage: 24.0 V

Power: 5.01 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 83 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H130.5

Vertical Diffuse Angle(50%): V130.6

Luminaire Efficacy Rating (LER): 17

Max. Intensity: 23.63 cd

Total Rated Lamp Lumens: 83.0 lm

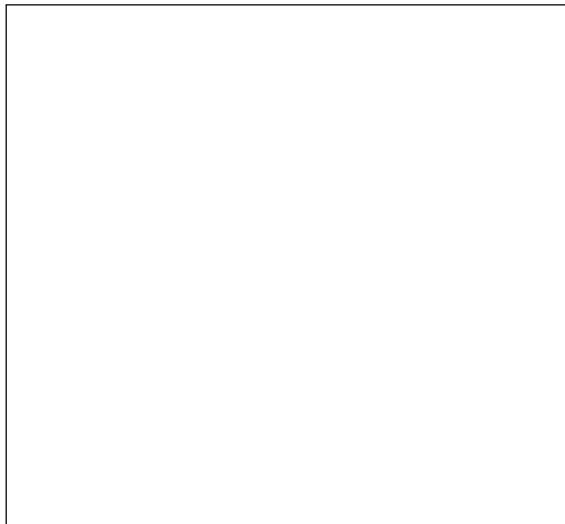
Efficiency: 100%

Upward Ratio: 1%

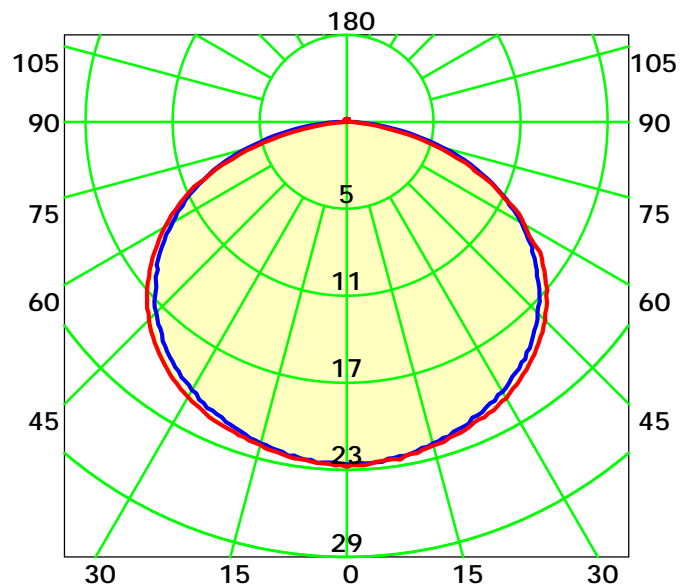
Central Intensity: 23.44 cd

Pos of Max. Intensity: H150 V2

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 130.5° 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

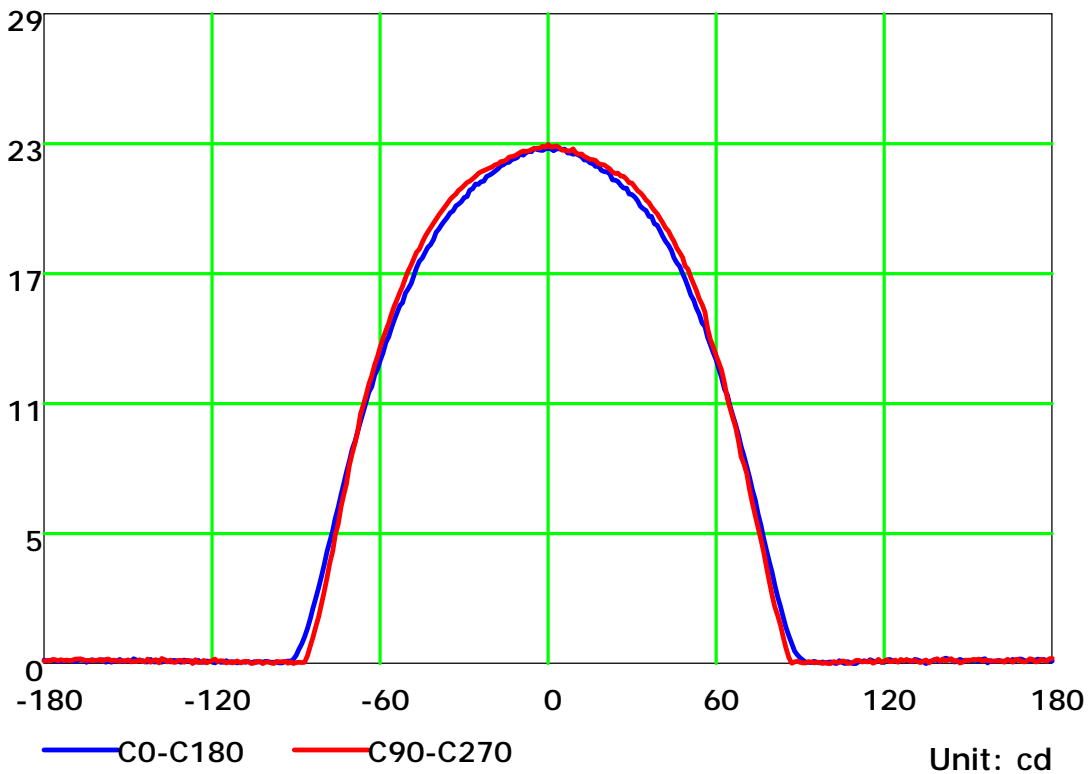
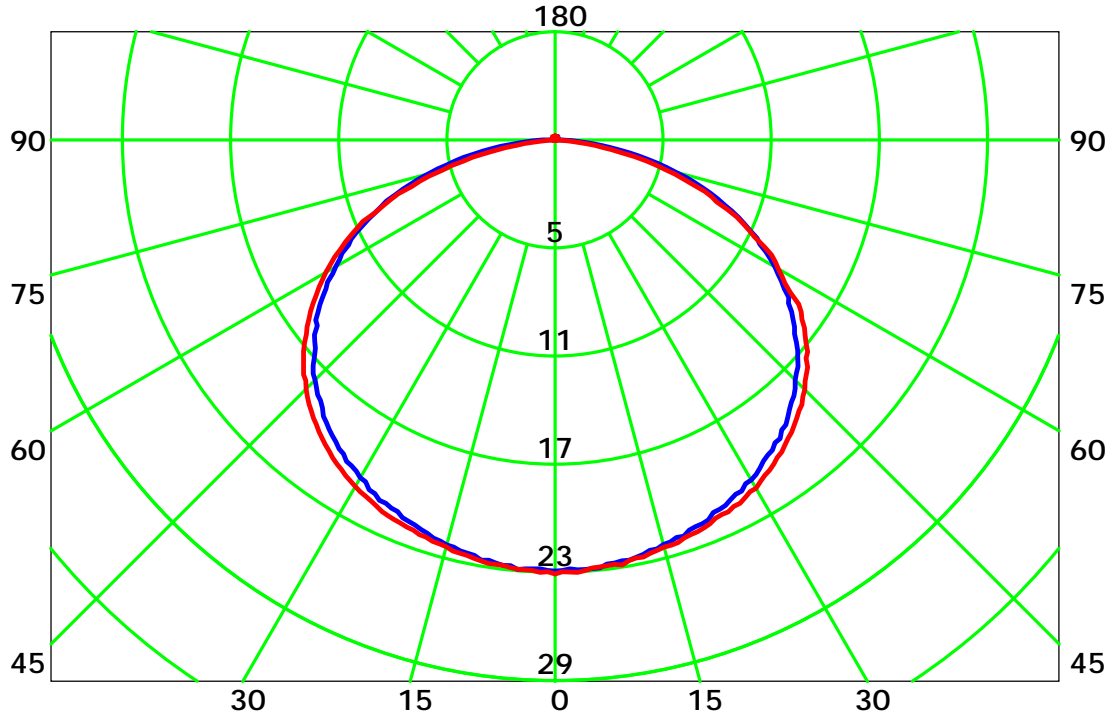
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

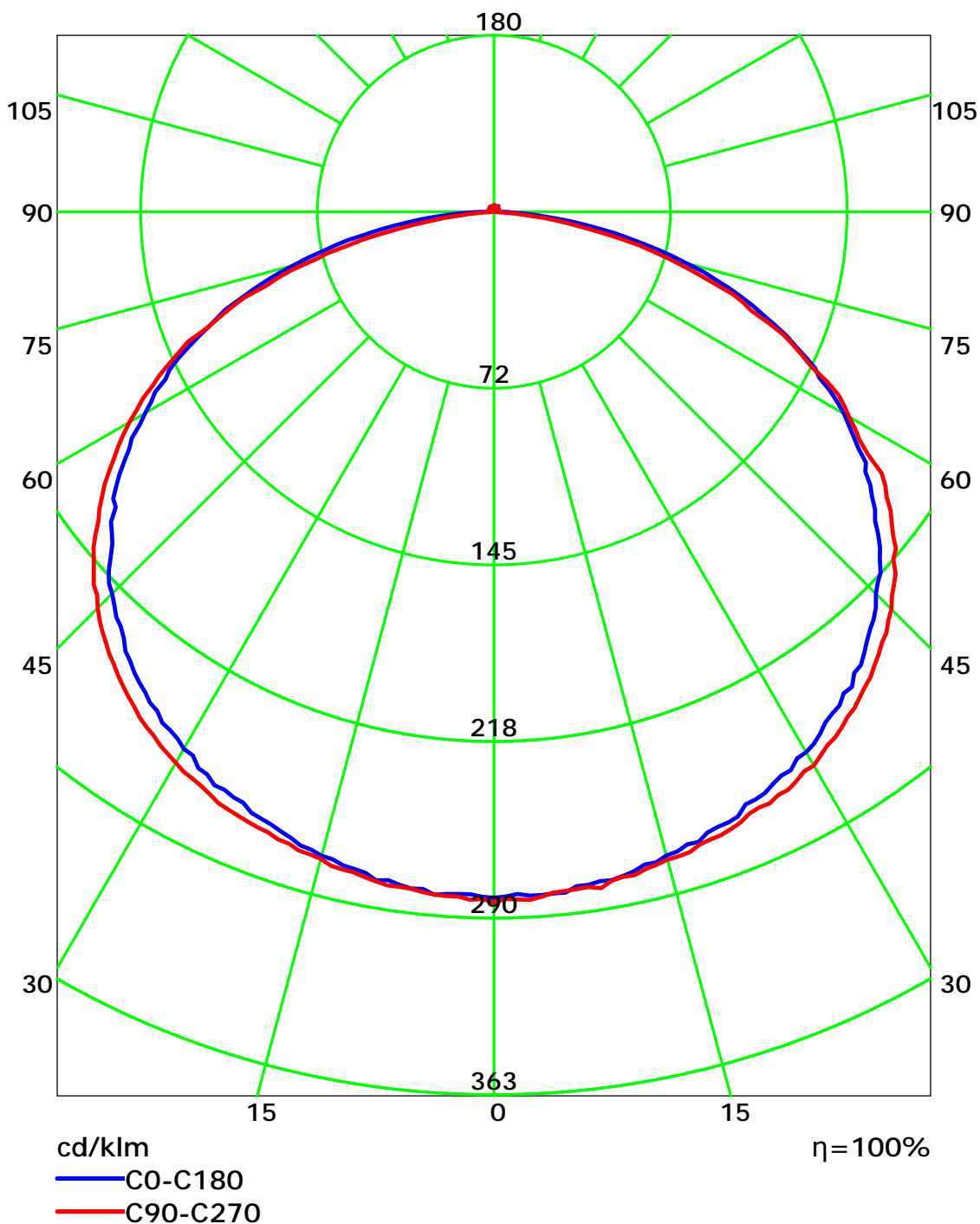
## Luminous Intensity Distribution Curve



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:

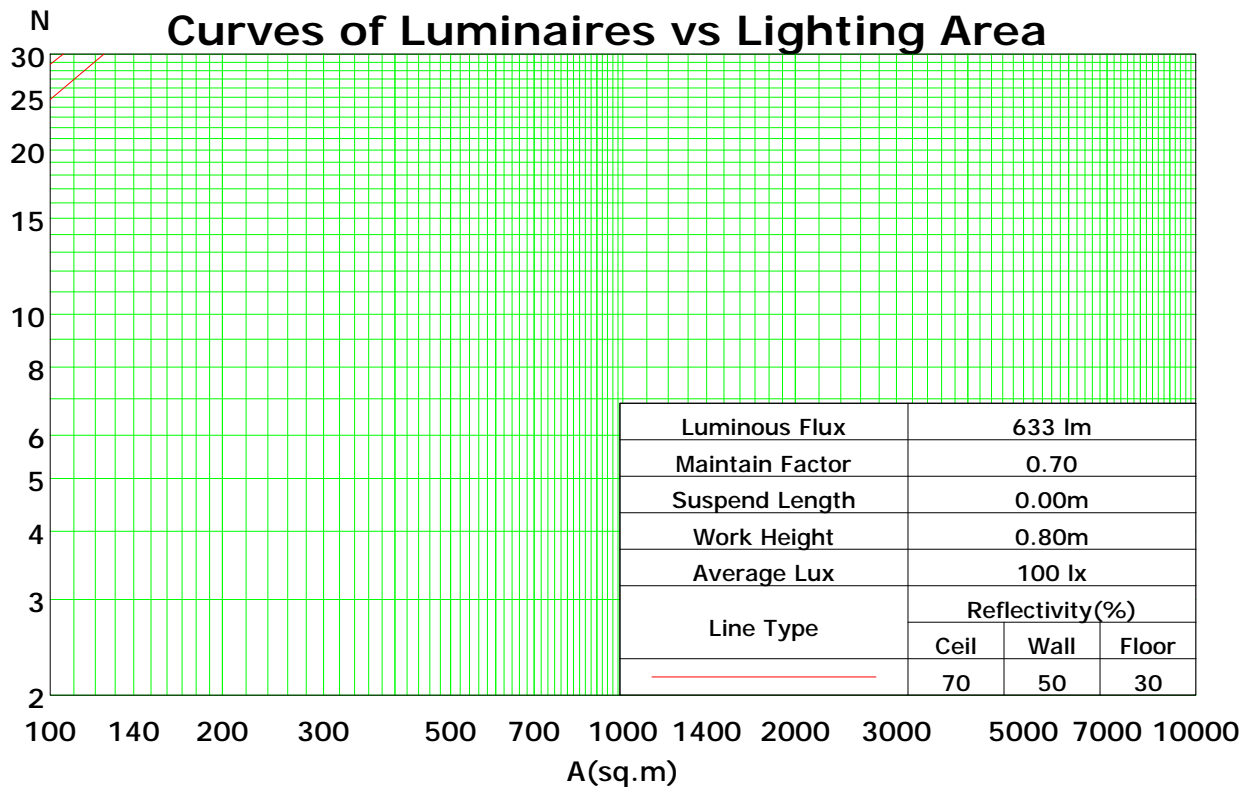
## Coefficients Of Utilization - Zonal Cavity Method

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	102	98	93	105	100	96	92	96	92	89	91	89	86	88	85	83	81
2	97	88	81	75	94	86	79	74	82	77	72	79	74	70	76	72	68	66
3	88	77	68	61	85	75	67	60	72	65	59	69	63	58	66	61	57	54
4	80	67	58	51	78	66	57	50	63	56	50	61	54	49	58	53	48	46
5	73	60	50	43	71	58	50	43	56	48	42	54	47	42	52	46	41	39
6	67	53	44	37	65	52	44	37	50	43	37	49	42	36	47	41	36	34
7	62	48	39	33	60	47	39	32	46	38	32	44	37	32	43	36	32	29
8	58	44	35	29	56	43	35	29	42	34	28	40	33	28	39	33	28	26
9	54	40	32	26	52	39	31	26	38	31	25	37	30	25	36	30	25	23
10	51	37	29	23	49	36	28	23	35	28	23	34	28	23	33	27	23	21

Spacing Criteria (0-180): 1.35

Spacing Criteria (90-270): 1.38

Spacing Criteria (Diagonal): 1.52



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

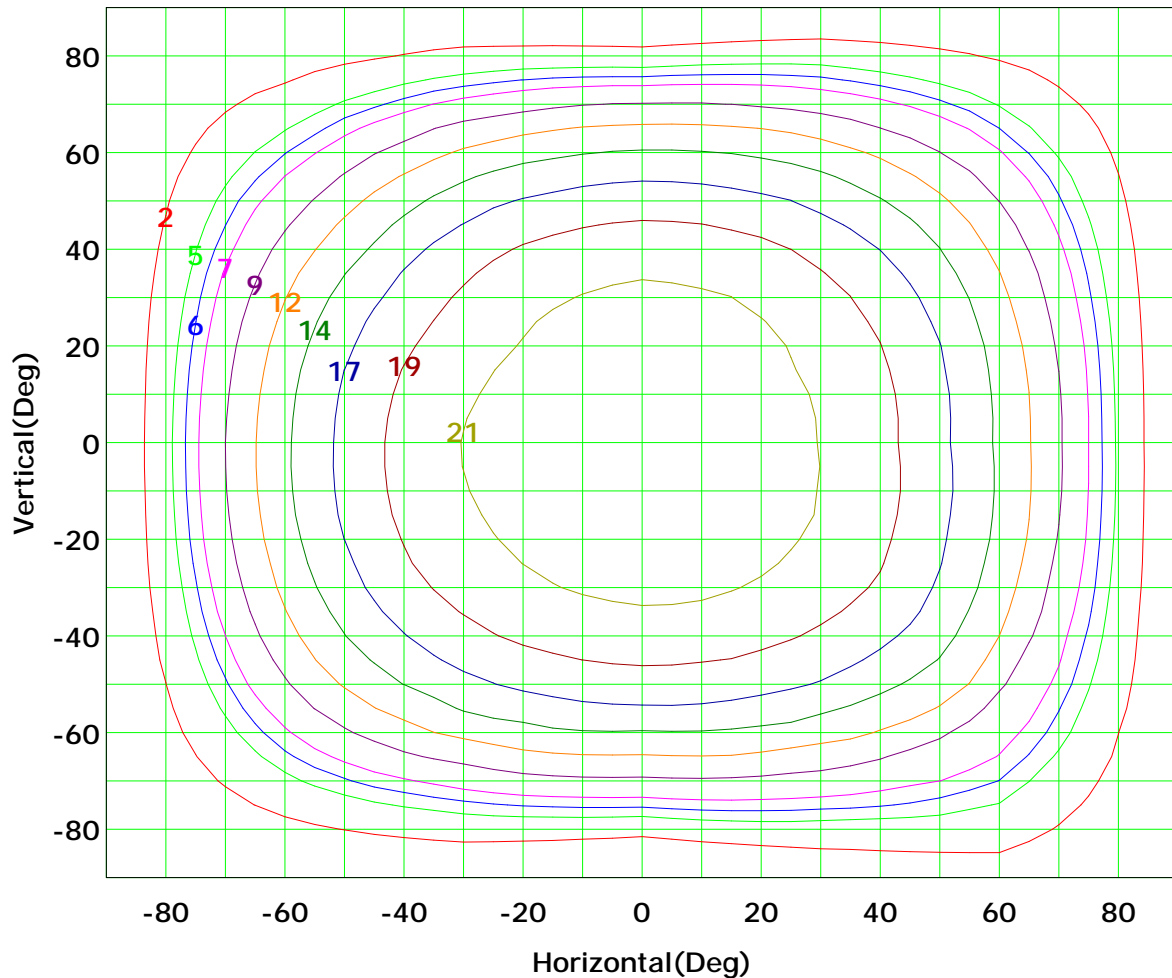
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Isocandela (rectangle)



Imax (100%): 24 cd

( 10%):	2 cd	( 20%):	5 cd
( 25%):	6 cd	( 30%):	7 cd
( 40%):	9 cd	( 50%):	12 cd
( 60%):	14 cd	( 70%):	17 cd
( 80%):	19 cd	( 90%):	21 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

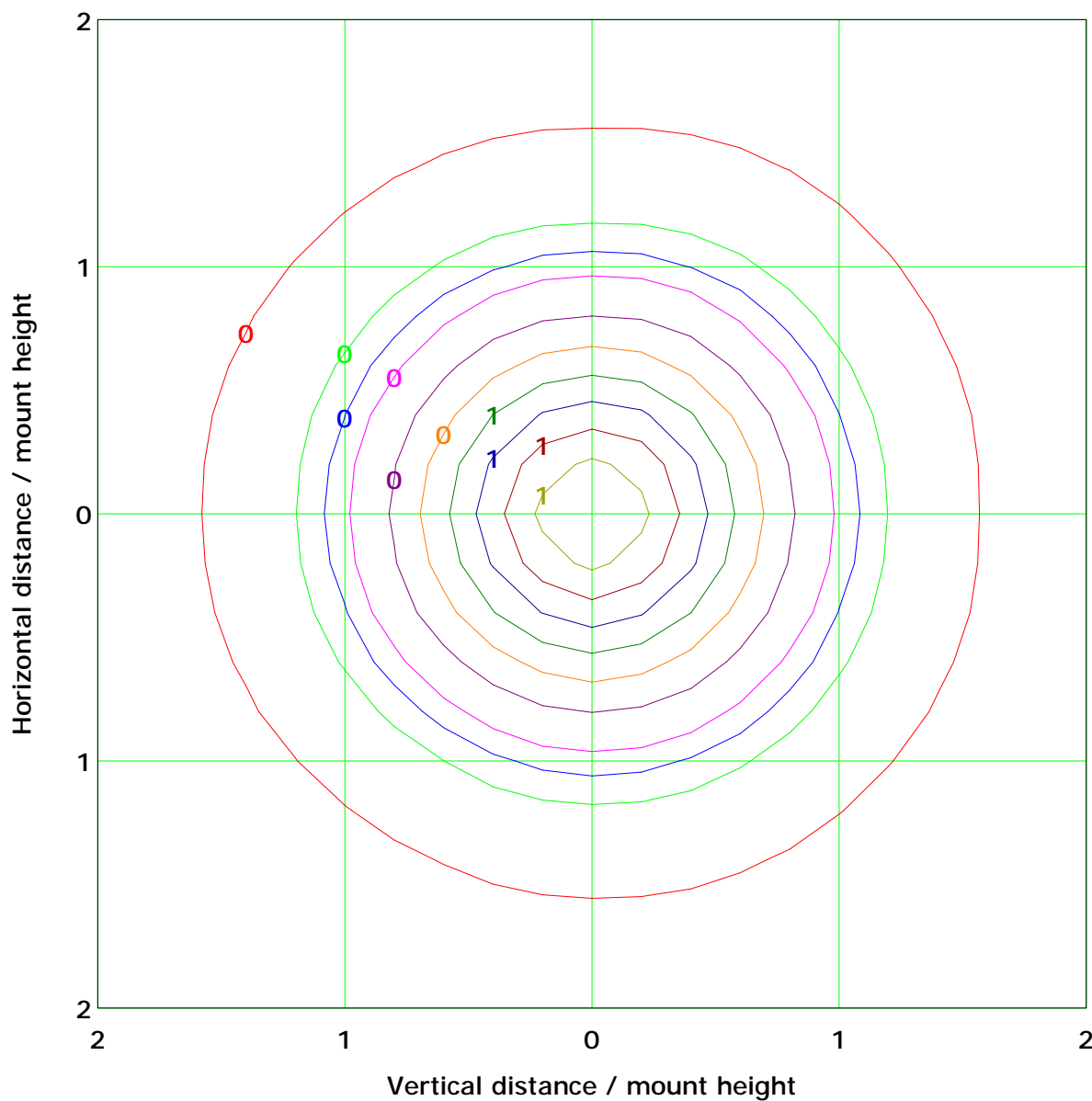
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 0.9 lx

( 10%): 0.1 lx	( 20%): 0.2 lx
( 25%): 0.2 lx	( 30%): 0.3 lx
( 40%): 0.4 lx	( 50%): 0.5 lx
( 60%): 0.6 lx	( 70%): 0.7 lx
( 80%): 0.8 lx	( 90%): 0.8 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

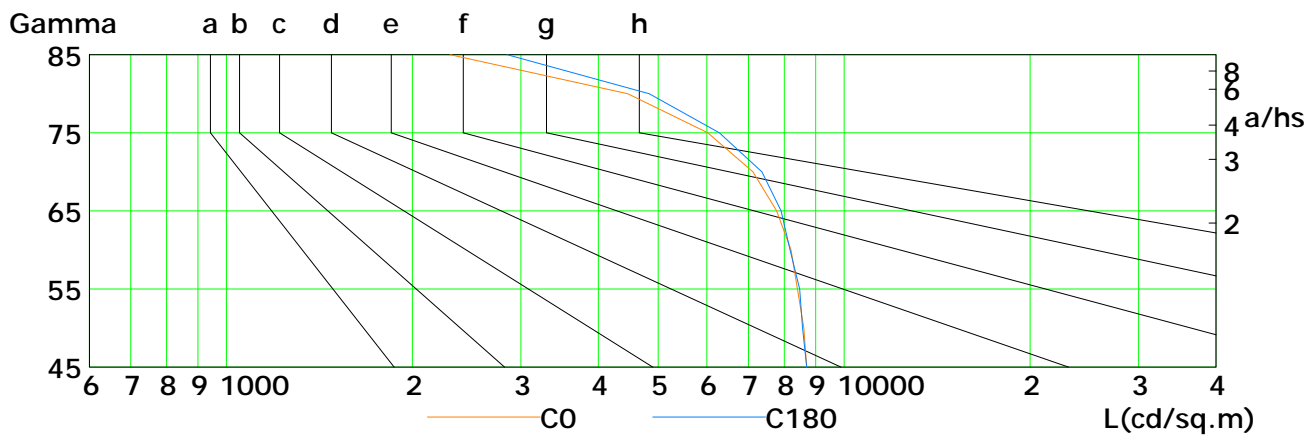
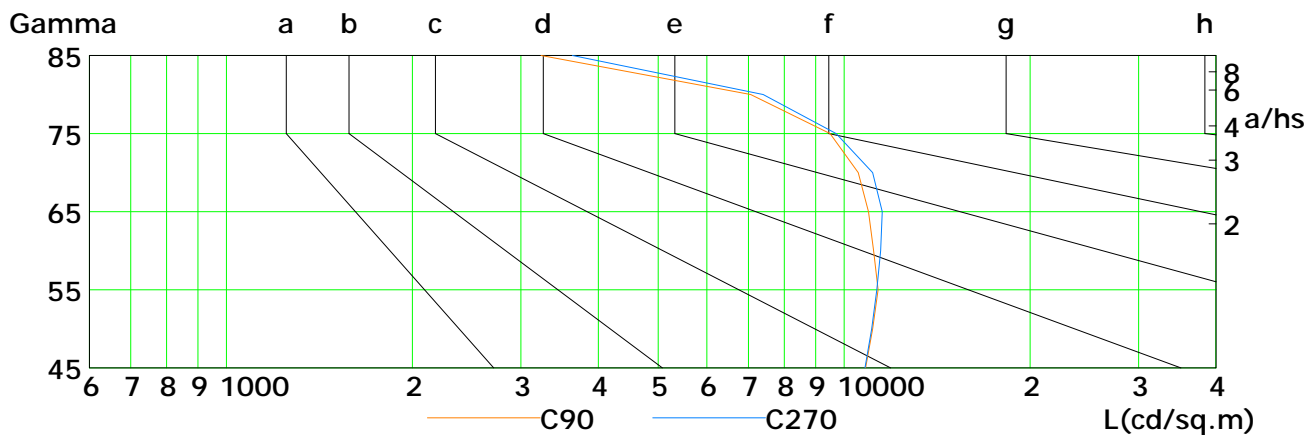
Humidity: 60%

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	8702	8608	8402	8206	7776	7118	6018	4468	2305
C90	10839	11131	11356	11169	10961	10550	9496	7061	3231
C180	8697	8568	8473	8182	7909	7367	6283	4835	2849
C270	10811	11088	11293	11464	11535	11120	9710	7402	3634

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

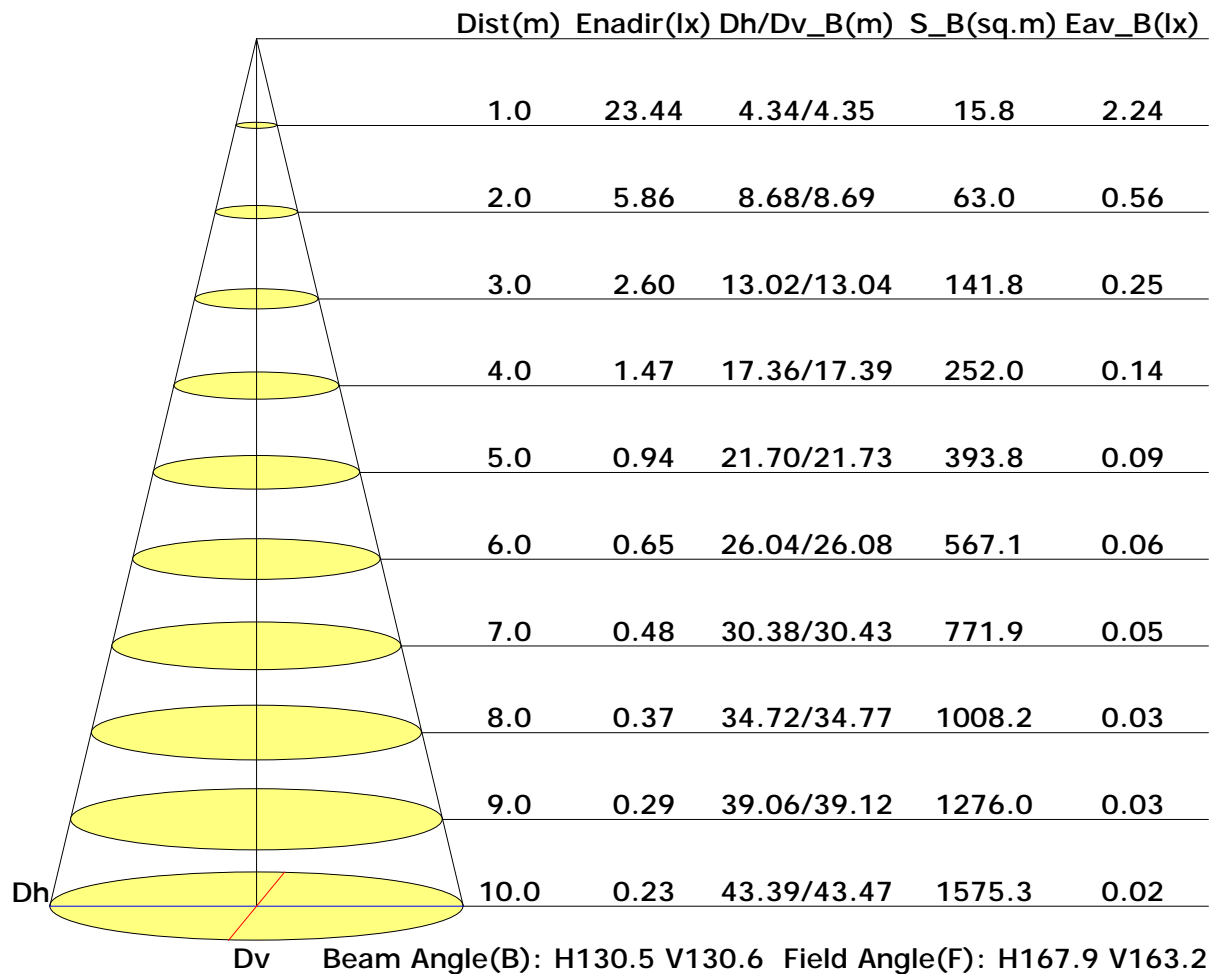
Test Device: GPM-1800B

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

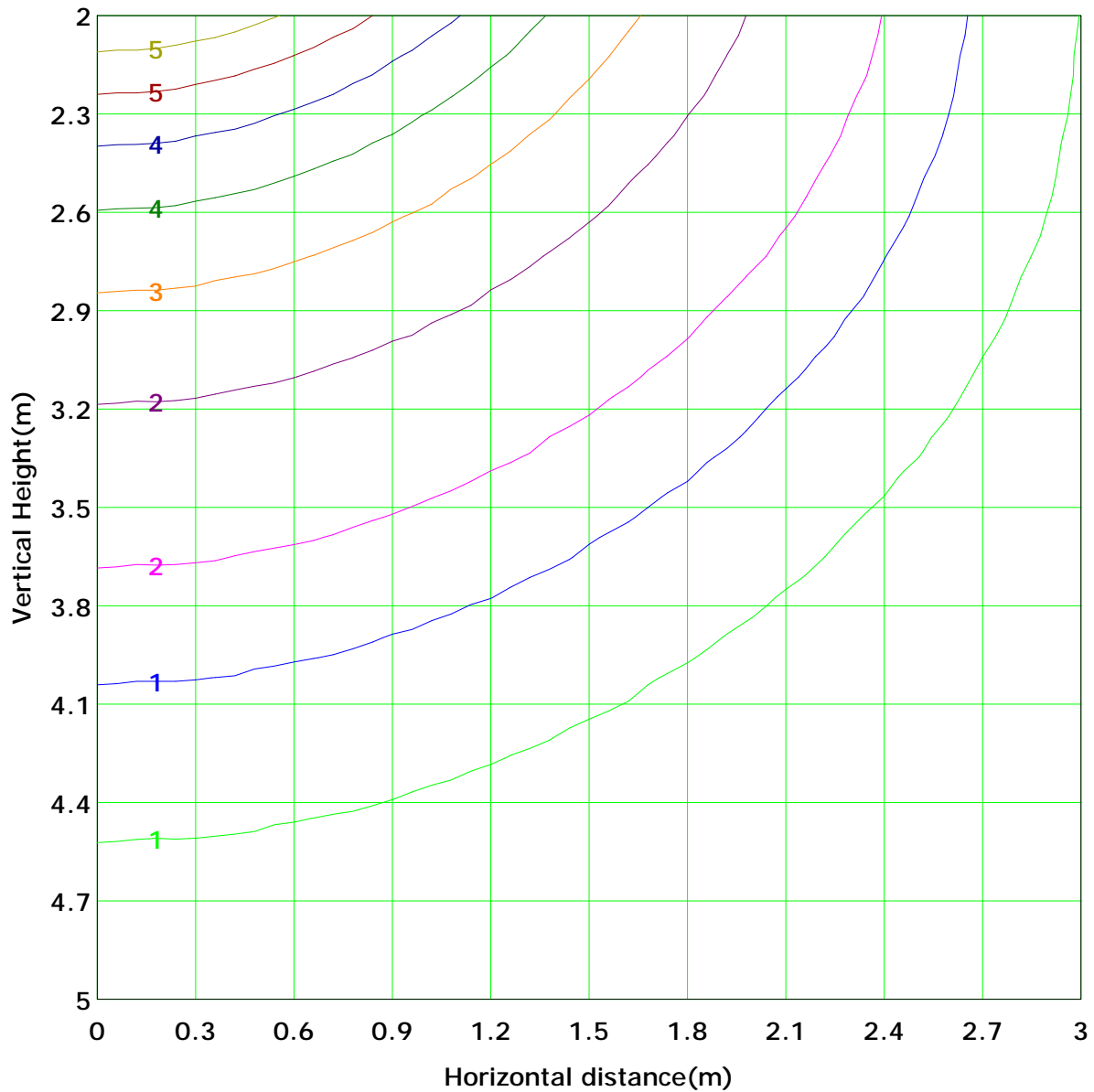
Distance: 9.028 m

Humidity: 60%

Inspector:



## Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 5.9 lx
( 10%): 0.6 lx	( 20%): 1.2 lx	
( 25%): 1.5 lx	( 30%): 1.8 lx	
( 40%): 2.3 lx	( 50%): 2.9 lx	
( 60%): 3.5 lx	( 70%): 4.1 lx	
( 80%): 4.7 lx	( 90%): 5.3 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)
Horizontal plane	-90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
	-80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.6
	-70	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	1.8	1.8
	-60	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	0.3	0.3	0.2	0.1	0.0	3.3	3.3
	-50	0.0	0.0	0.1	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.1	0.0	4.9	4.9
	-40	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.3	0.3	0.2	0.1	0.0	6.3	6.3
	-30	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.4	0.3	0.3	0.2	0.1	7.5	7.5
	-20	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.4	0.3	0.2	0.1	8.3	8.3
	-10	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.4	0.3	0.2	0.1	8.7	8.7
	0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.4	0.3	0.2	0.1	8.7	8.7
	10	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	8.2	8.2
	20	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0	7.3	7.3
	30	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0	0.0	6.1	6.1
	40	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	4.6	4.6
	50	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	3.0	3.0
	60	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	1.6	1.6
	70	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.5	0.5
	80	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.6	0.6
	90	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.1
	Flux(T)																				82	
	Flux(E)																					81

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

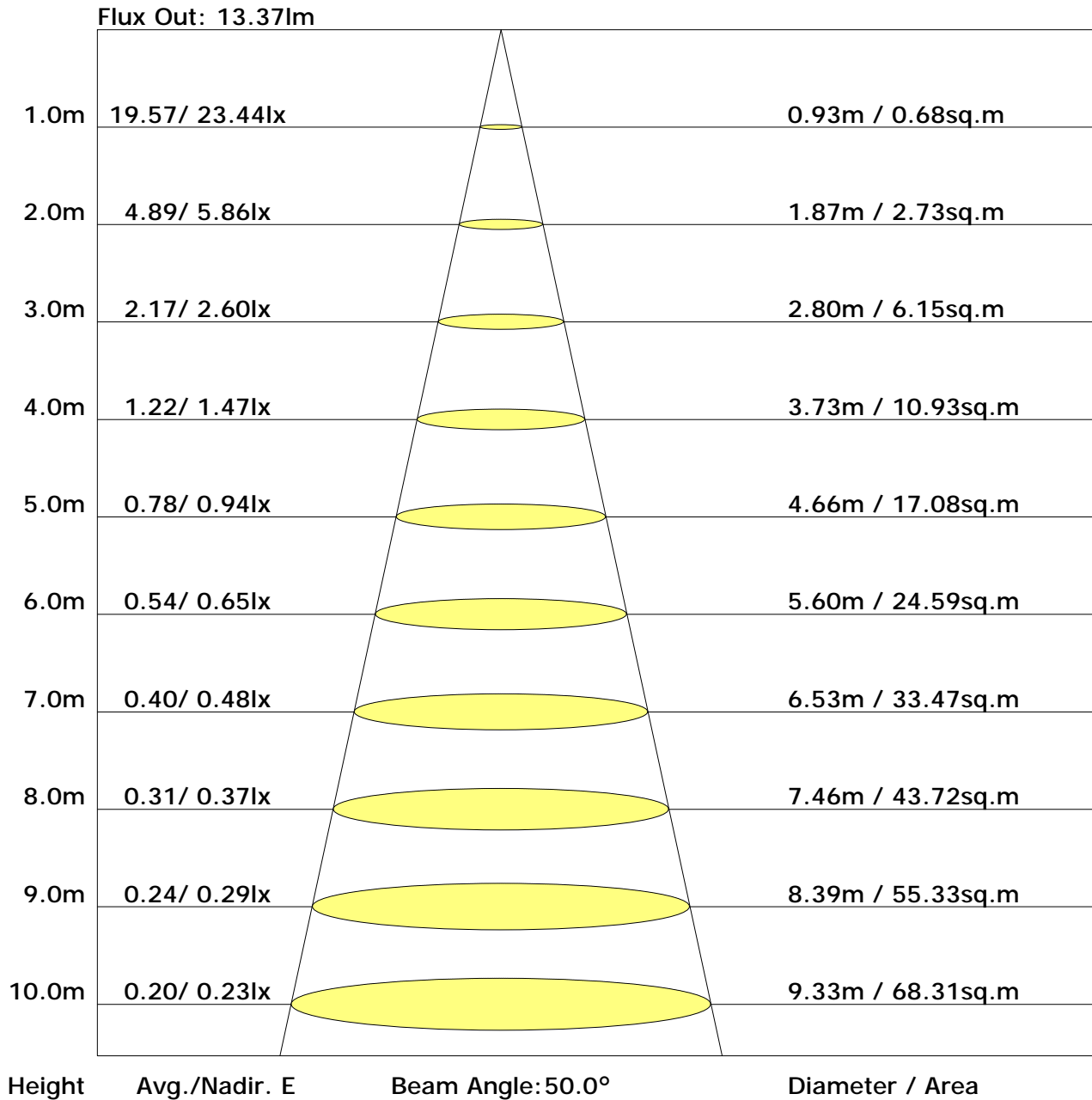
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## The Average Illuminance Effective Figure



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:

## 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	28.9	30.6	29.3	31.0	31.3	28.6	30.3	29.0	30.7	31.0
3H	31.0	32.6	31.4	32.9	33.3	30.4	31.9	30.7	32.2	32.6
4H	31.9	33.3	32.3	33.7	34.1	30.9	32.4	31.4	32.8	33.2
6H	32.4	33.8	32.9	34.2	34.6	31.3	32.6	31.7	33.0	33.4
8H	32.6	33.9	33.1	34.3	34.7	31.3	32.6	31.8	33.0	33.4
12H	32.7	34.0	33.2	34.4	34.8	31.3	32.6	31.8	33.0	33.4
X=4H Y=2H	29.6	31.0	30.0	31.4	31.8	29.4	30.9	29.8	31.2	31.6
3H	31.8	33.1	32.3	33.5	33.9	31.4	32.6	31.8	33.0	33.4
4H	32.8	33.9	33.2	34.3	34.8	32.1	33.2	32.5	33.6	34.1
6H	33.5	34.4	33.9	34.9	35.4	32.5	33.5	33.0	33.9	34.4
8H	33.7	34.6	34.1	35.0	35.5	32.6	33.5	33.0	34.0	34.4
12H	33.8	34.7	34.3	35.1	35.6	32.6	33.4	33.1	33.9	34.4
X=8H Y=4H	33.0	33.9	33.5	34.4	34.9	32.5	33.4	33.0	33.9	34.3
6H	33.8	34.6	34.3	35.1	35.5	33.0	33.8	33.5	34.3	34.8
8H	34.1	34.7	34.6	35.3	35.8	33.2	33.9	33.7	34.4	34.9
12H	34.3	34.9	34.8	35.4	35.9	33.2	33.9	33.8	34.4	34.9
X=12H Y=4H	33.0	33.9	33.5	34.3	34.8	32.6	33.4	33.1	33.9	34.4
6H	33.8	34.5	34.4	35.0	35.5	33.2	33.9	33.7	34.3	34.9
8H	34.1	34.7	34.6	35.2	35.8	33.3	33.9	33.9	34.4	35.0

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 = 1.50								
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	0.55	0.64	0.72	0.77	0.85	0.90	0.94	0.99	1.02
	0.30		0.47	0.56	0.64	0.70	0.78	0.84	0.88	0.94	0.98
	0.20		0.41	0.50	0.58	0.64	0.73	0.79	0.84	0.90	0.95
0.50	0.50	0.20	0.54	0.62	0.69	0.74	0.82	0.87	0.90	0.95	0.98
	0.30		0.46	0.54	0.62	0.68	0.76	0.81	0.85	0.91	0.94
	0.20		0.41	0.49	0.57	0.63	0.71	0.77	0.82	0.88	0.92
0.30	0.50	0.20	0.52	0.60	0.67	0.72	0.79	0.83	0.86	0.91	0.94
	0.30		0.46	0.53	0.61	0.66	0.74	0.79	0.83	0.88	0.91
	0.20		0.41	0.48	0.56	0.62	0.70	0.75	0.79	0.85	0.89
0.00	0.00	0.00	0.38	0.46	0.53	0.59	0.66	0.71	0.75	0.80	0.84
Rating:5W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											

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(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	1.01	0.87	0.74	0.64	0.52	0.43	0.37	0.29	0.23
	0.30		0.85	0.74	0.64	0.57	0.47	0.39	0.34	0.27	0.22
	0.20		0.73	0.65	0.57	0.51	0.43	0.36	0.32	0.25	0.21
0.50	0.50	0.20	0.98	0.83	0.71	0.62	0.49	0.44	0.35	0.27	0.22
	0.30		0.83	0.72	0.62	0.55	0.45	0.38	0.33	0.26	0.21
	0.20		0.72	0.64	0.56	0.50	0.42	0.35	0.31	0.25	0.20
0.30	0.50	0.20	0.95	0.80	0.68	0.59	0.47	0.39	0.34	0.26	0.21
	0.30		0.81	0.71	0.61	0.54	0.44	0.37	0.32	0.25	0.20
	0.20		0.71	0.63	0.55	0.49	0.41	0.34	0.30	0.24	0.20
0.00	0.00	0.00	0.61	0.54	0.46	0.41	0.33	0.28	0.24	0.19	0.16
Rating:5W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											

C Plane (°):0.0-360.0: 30.0  
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Gamma Plane (°):0.0-180.0:1.0  
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 Humidity: 60%  
 Inspector:

## 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	0.17	0.19	0.20	0.20	0.21	0.22	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	0.14	0.16	0.17
0.50	0.50	0.20	0.17	0.18	0.19	0.19	0.20	0.21	0.21	0.22	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	0.09	0.11	0.13	0.14	0.16	0.17
0.30	0.50	0.20	0.16	0.18	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:5W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											

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: