

Report No.:

Test Time: 2018/8/31 15:09

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RIBBONLYTE

Luminaire Description: RBS2245.030PH 1FT(320mm)

Luminous Length (mm): 320

Luminous Width (mm): 10

Luminous Height (mm): 1

Voltage: 24.0 V

Current: 0.219 A

Power: 5.26 W

Power Factor: 1.000

## Photometric Results

CIE Class: Direct

Measurement Flux: 702.9 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H116.7

Vertical Diffuse Angle(50%): V116.6

Luminaire Efficacy Rating (LER): 134

Max. Intensity: 234.78 cd

Total Rated Lamp Lumens: 702.9 lm

Efficiency: 100%

Upward Ratio: 1%

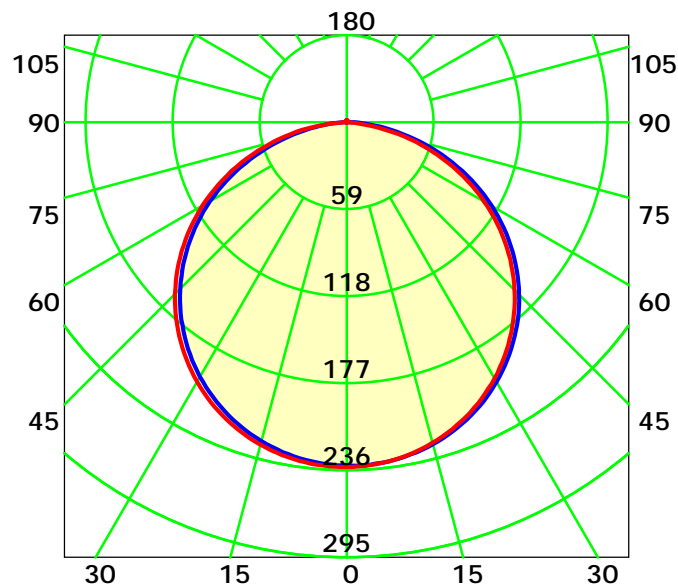
Central Intensity: 233.6 cd

Pos of Max. Intensity: H330 V2

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 116.6° 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

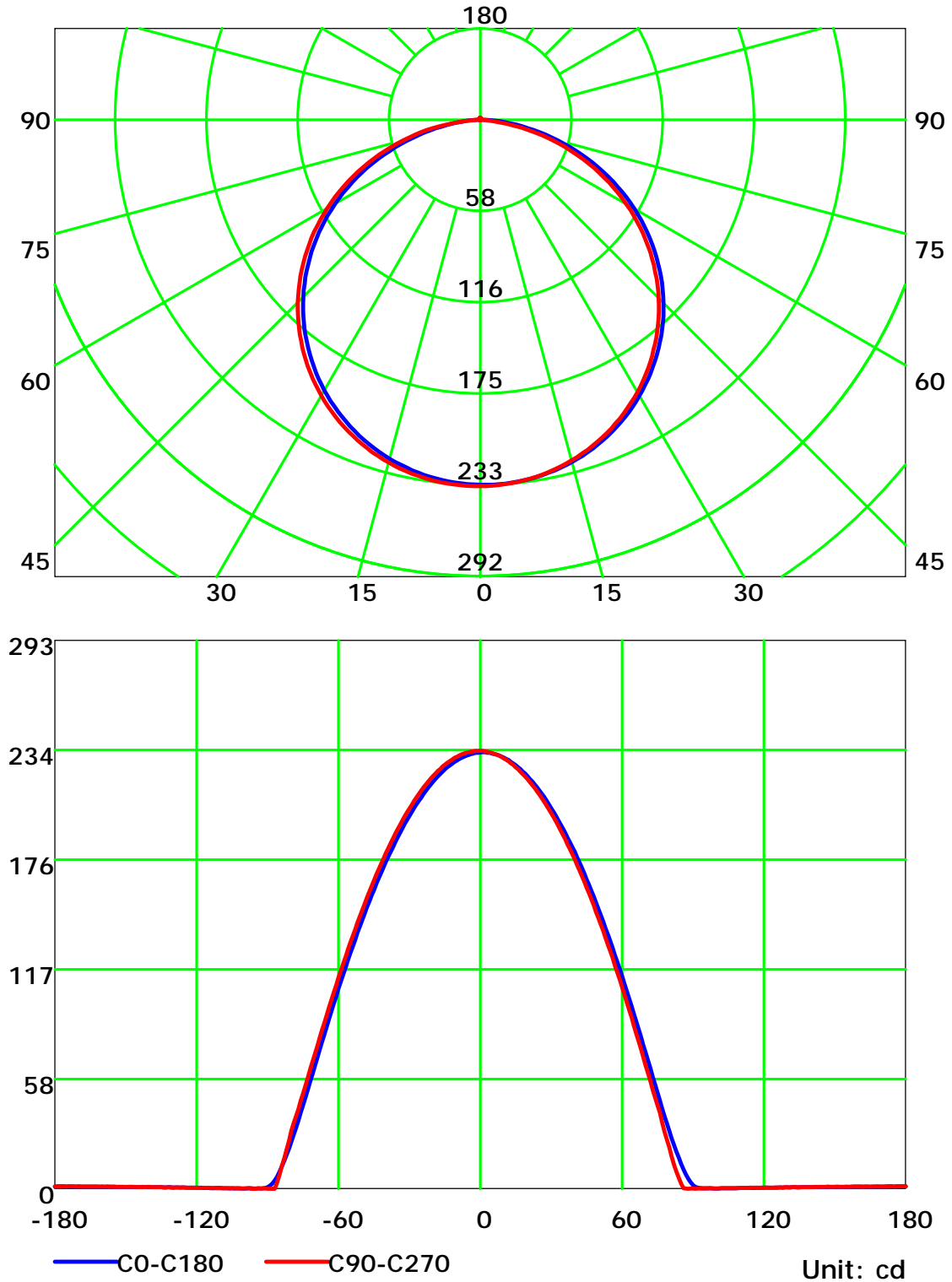
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

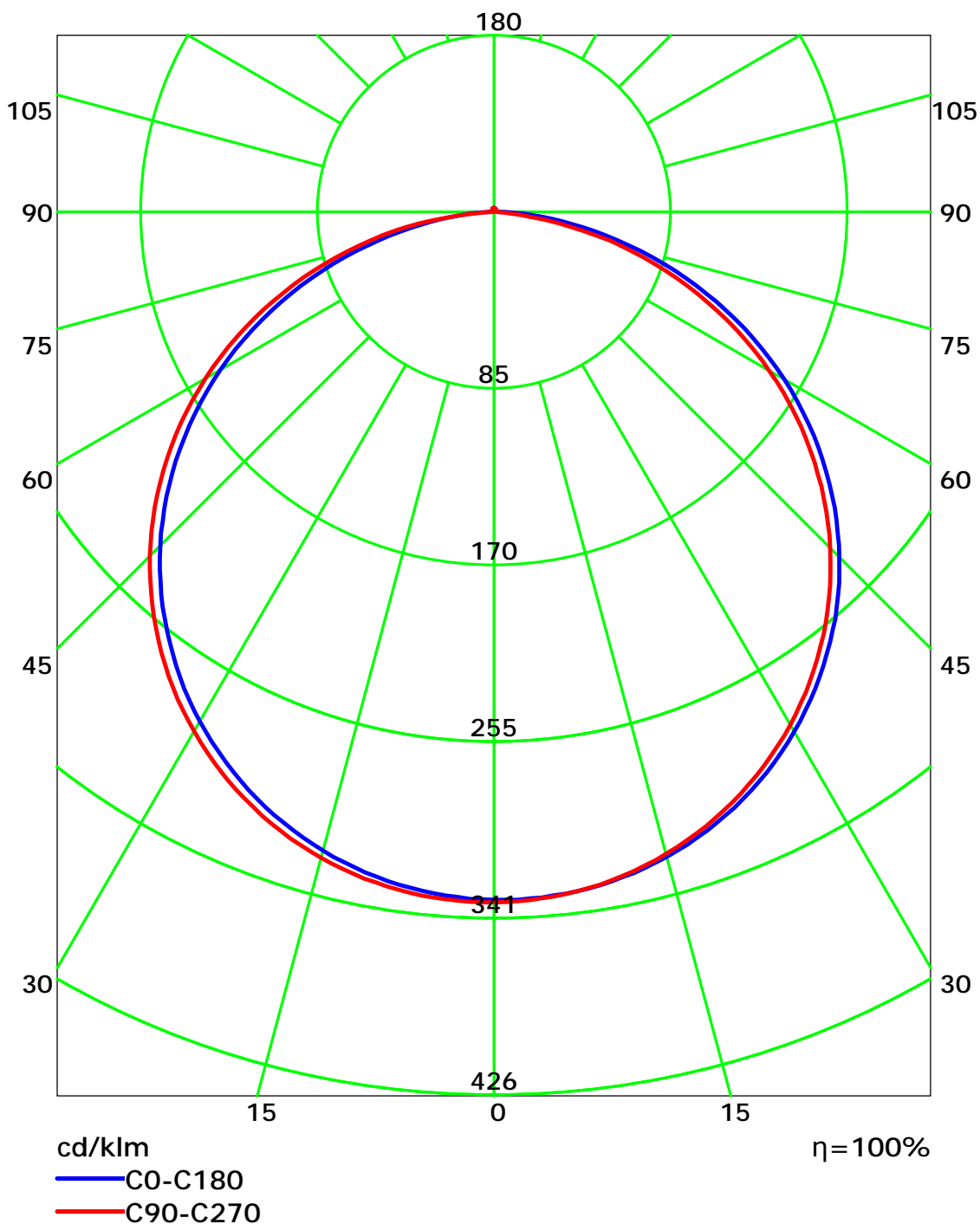
## Luminous Intensity Distribution Curve



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:

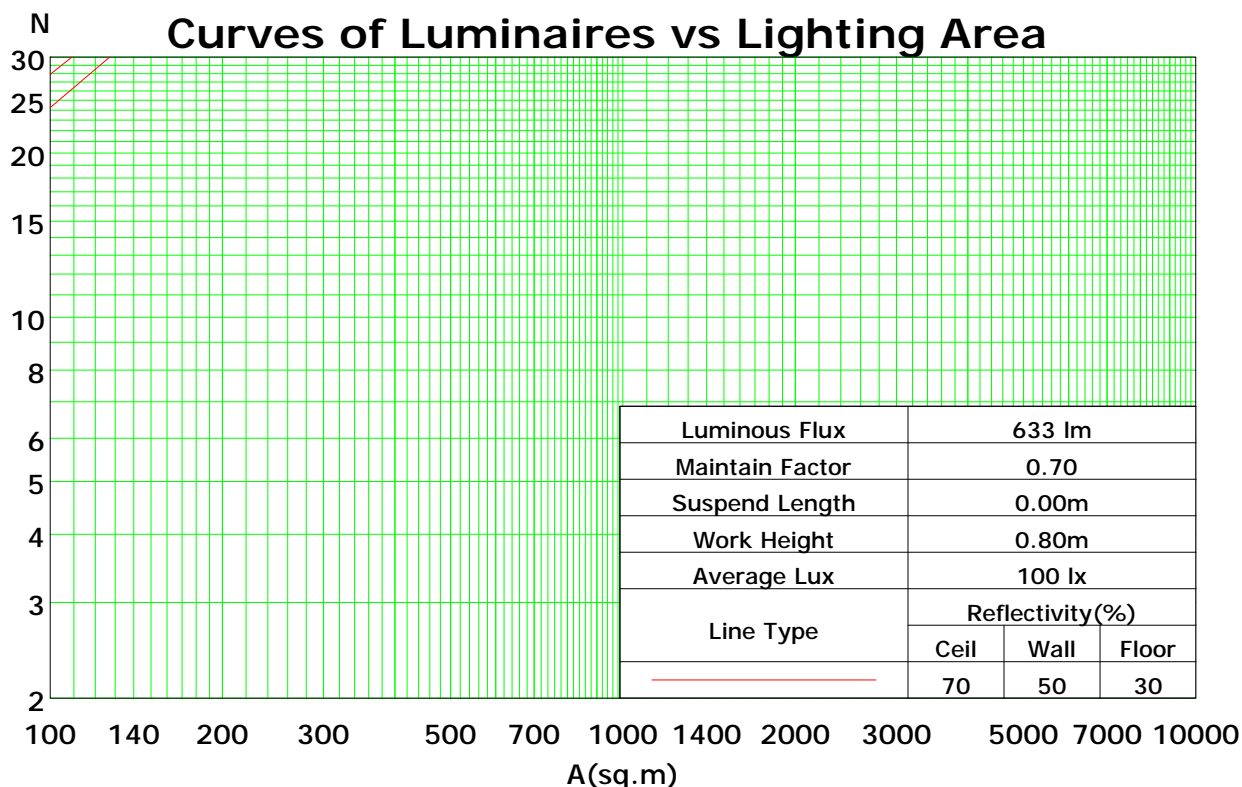
## Coefficients Of Utilization - Zonal Cavity Method

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	50	44	39	37
7	64	51	42	35	62	50	41	35	48	40	35	47	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): 1.28

Spacing Criteria (90-270): 1.28

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

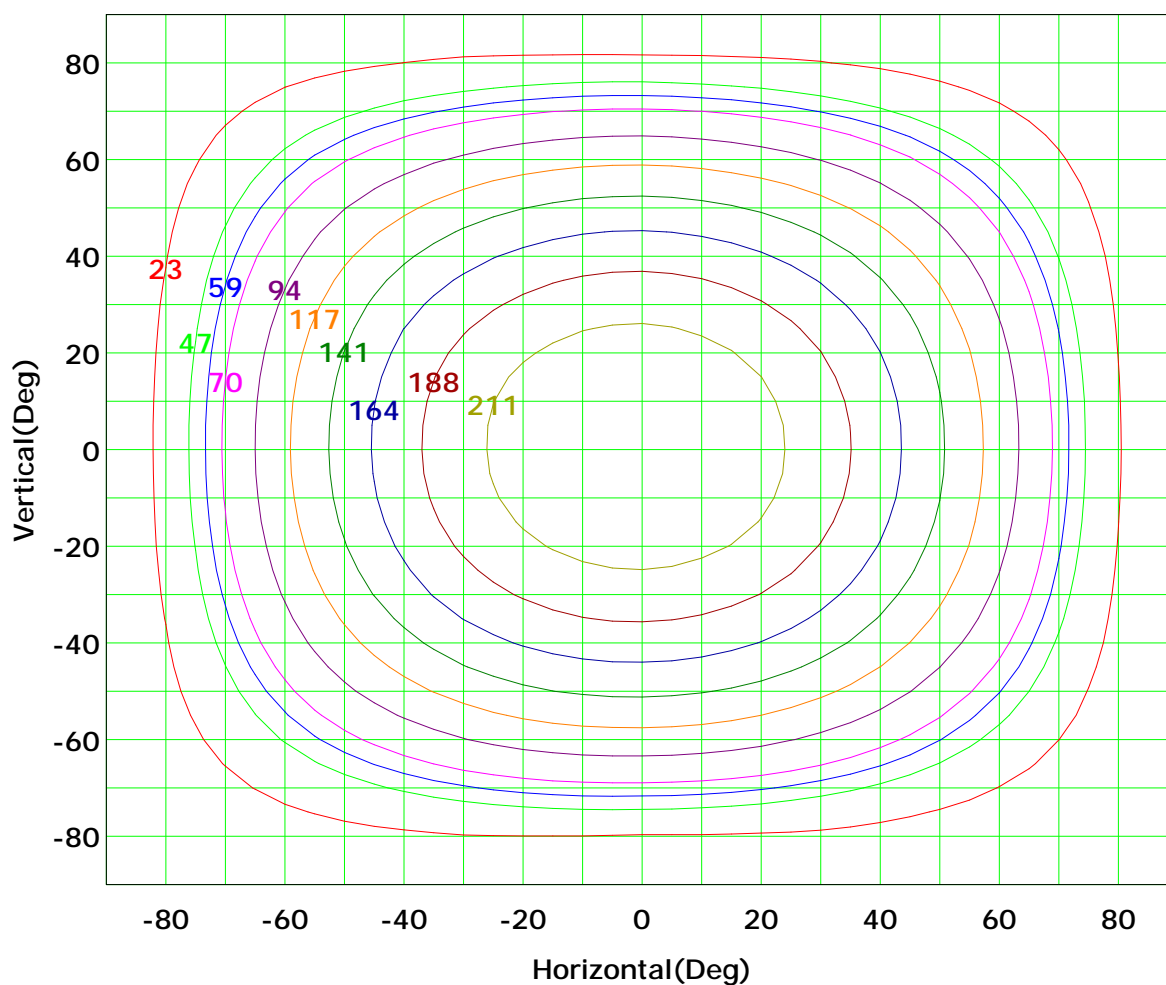
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Isocandela (rectangle)



I<sub>max</sub> (100%): 235 cd

( 10%): 23 cd	( 20%): 47 cd
( 25%): 59 cd	( 30%): 70 cd
( 40%): 94 cd	( 50%): 117 cd
( 60%): 141 cd	( 70%): 164 cd
( 80%): 188 cd	( 90%): 211 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

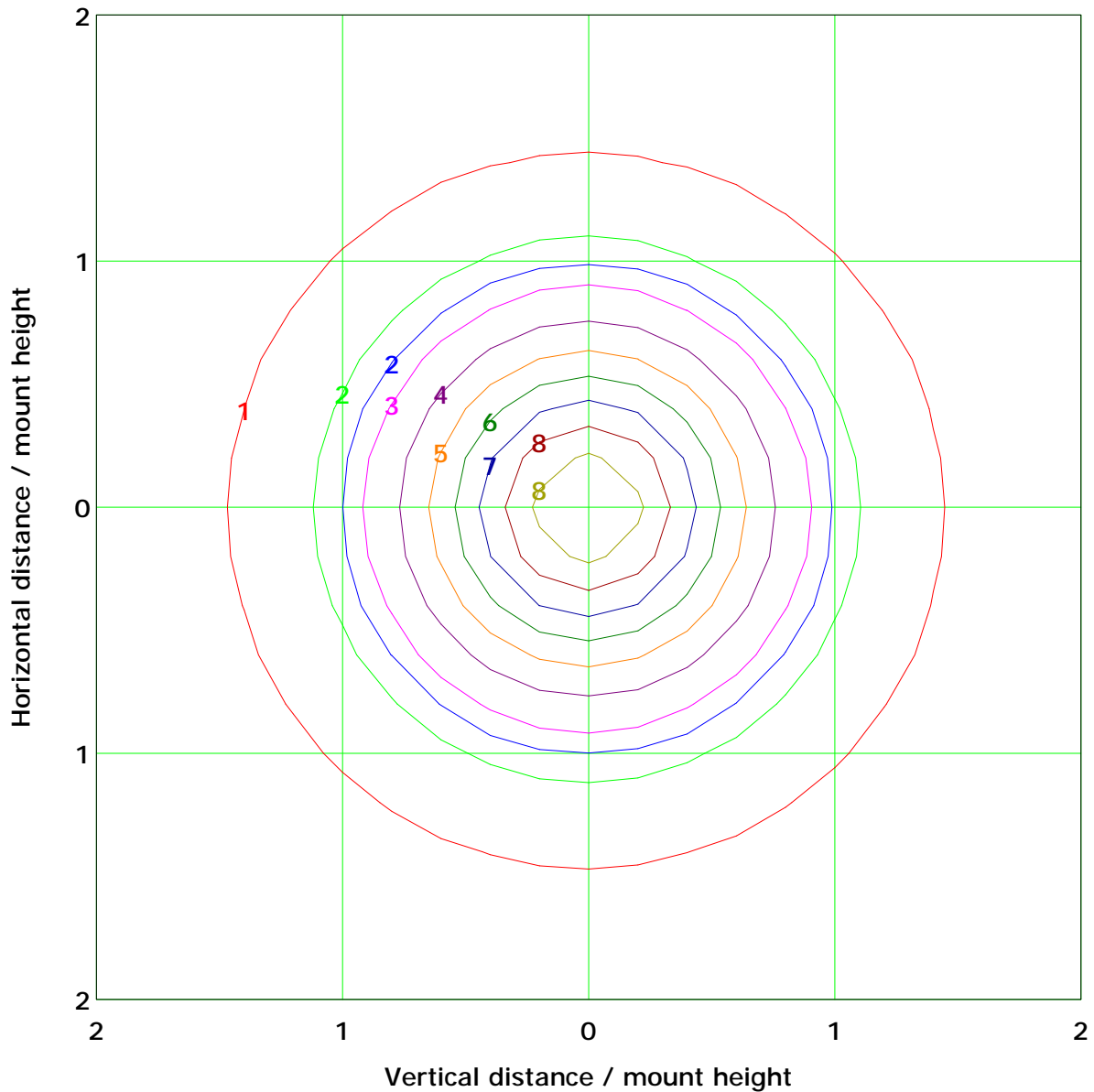
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 9.4 lx

( 10%): 0.9 lx	( 20%): 1.9 lx
( 25%): 2.3 lx	( 30%): 2.8 lx
( 40%): 3.8 lx	( 50%): 4.7 lx
( 60%): 5.6 lx	( 70%): 6.6 lx
( 80%): 7.5 lx	( 90%): 8.4 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

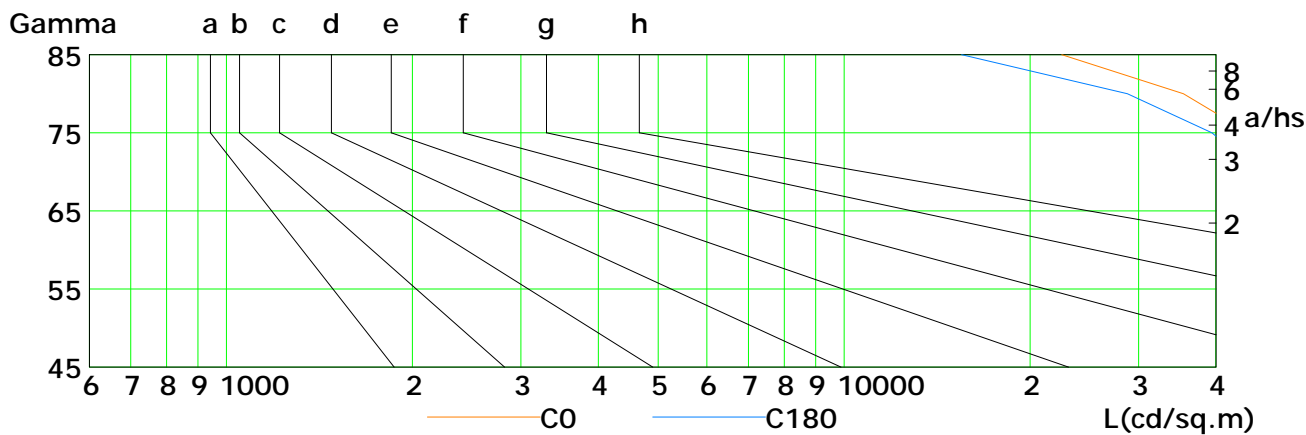
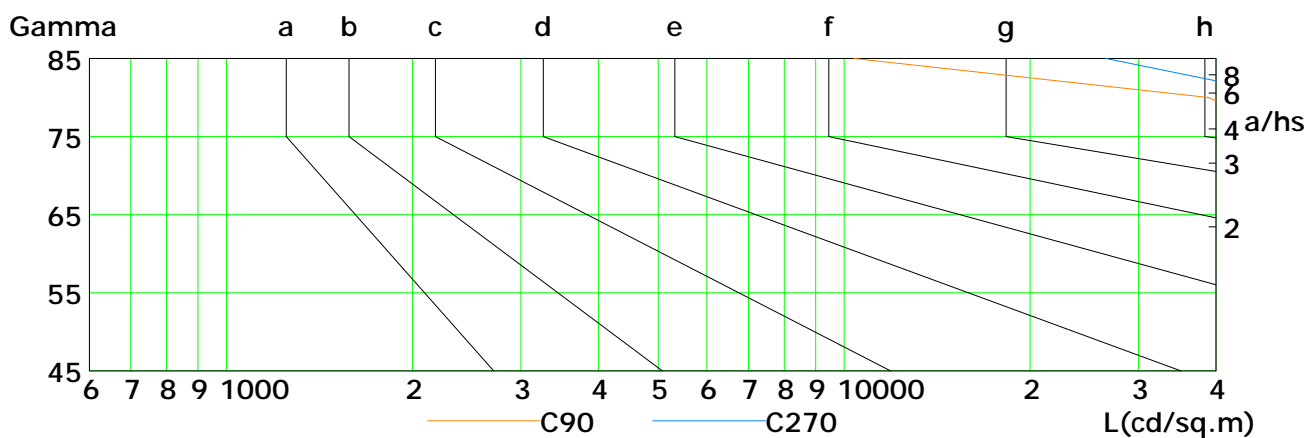
Humidity: 60%

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	66617	65098	63240	60625	57166	52223	45361	35450	22520
C90	71129	70295	69075	67081	64270	59799	53421	38920	10386
C180	64351	62483	60170	57167	52990	47263	39409	28766	15493
C270	72803	72281	71527	70295	68560	65561	61023	54799	26553

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

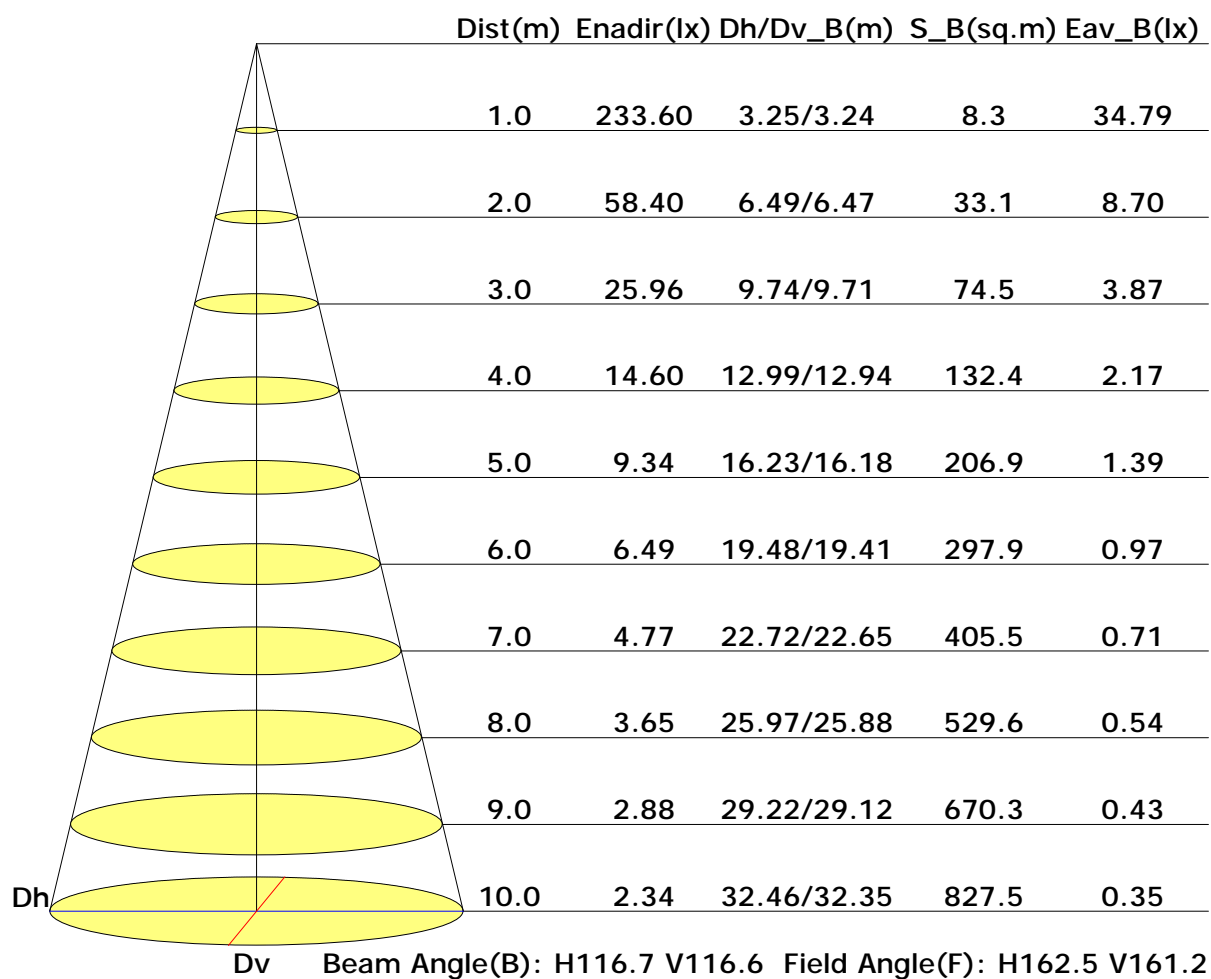
Test Device: GPM-1800B

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

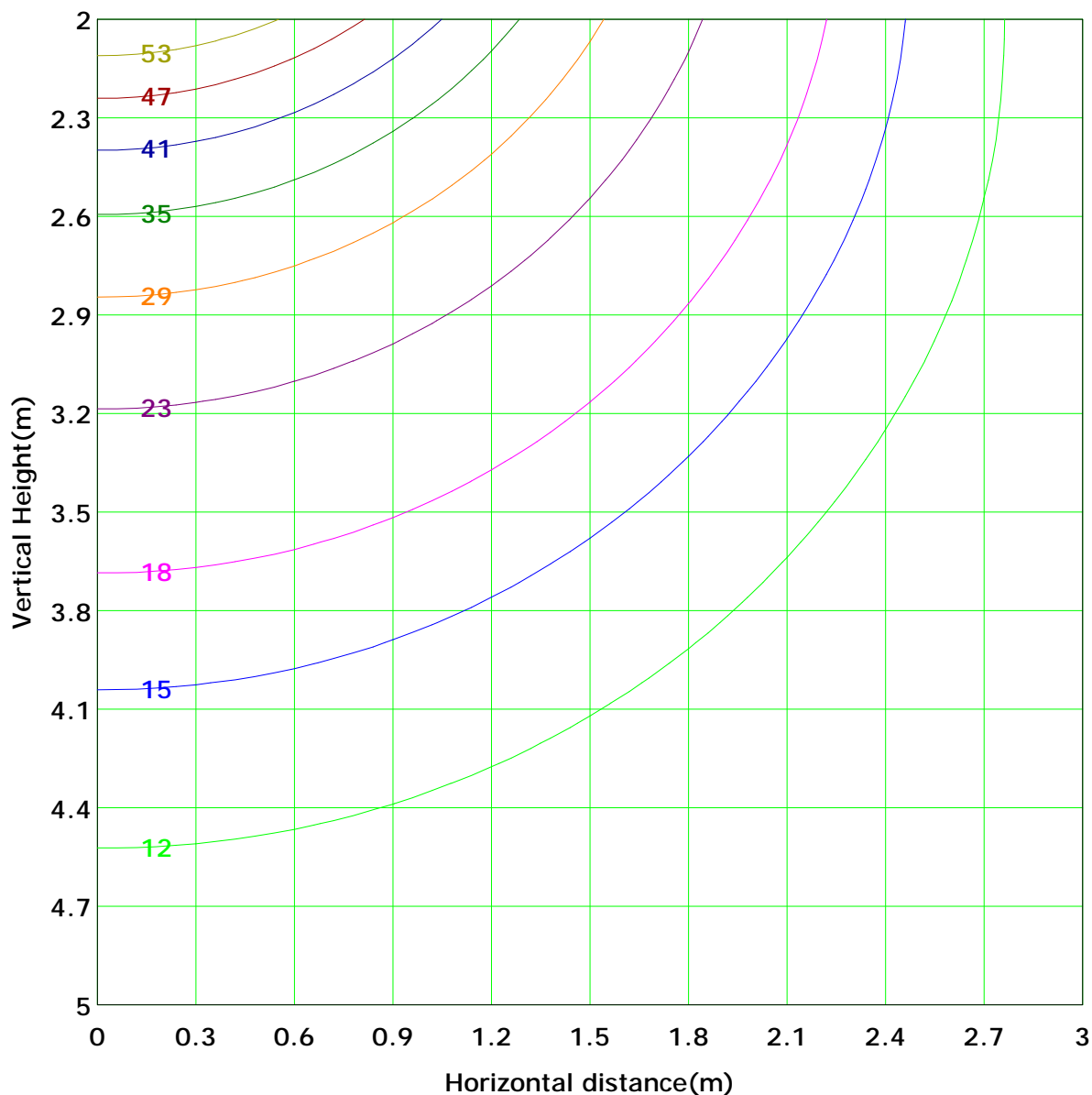
Distance: 9.028 m

Humidity: 60%

Inspector:



## Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 58.4 lx
( 10%): 5.8 lx	( 20%): 11.7 lx	
( 25%): 14.6 lx	( 30%): 17.5 lx	
( 40%): 23.4 lx	( 50%): 29.2 lx	
( 60%): 35.0 lx	( 70%): 40.9 lx	
( 80%): 46.7 lx	( 90%): 52.6 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:

## 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	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.4	0.0
	-80	0.0	0.1	0.2	0.4	0.7	0.9	0.9	0.7	0.4	0.3	0.2	0.1	0.0	0.0	0.1	0.3	0.7	1.2	2.3	3.8	3.1
	-70	0.0	0.1	0.4	0.8	1.2	1.8	2.2	2.6	3.2	4.0	5.0	6.4	7.8	9.2	10.6	12.0	13.4	14.8	16.2	11.8	11.2
	-60	0.0	0.2	0.6	1.1	1.8	2.6	3.2	4.0	5.0	6.4	8.0	9.6	11.2	12.8	14.4	16.0	17.6	19.2	20.8	23.5	22.9
	-50	0.0	0.2	0.7	1.5	2.4	3.2	4.0	5.0	6.4	8.0	9.6	11.2	12.8	14.4	16.0	17.6	19.2	20.8	22.4	37.4	36.8
	-40	0.0	0.3	0.9	1.8	2.8	3.8	4.7	5.8	7.0	8.4	9.8	11.2	12.6	14.0	15.4	16.8	18.2	19.6	21.0	51.4	50.8
	-30	0.0	0.3	1.0	2.0	3.1	4.2	5.2	6.3	7.4	8.5	9.6	10.7	11.8	12.9	14.0	15.1	16.2	17.3	18.4	63.9	63.3
	-20	0.0	0.4	1.1	2.1	3.3	4.5	5.6	6.7	7.8	8.9	10.0	11.1	12.2	13.3	14.4	15.5	16.6	17.7	18.8	73.2	72.7
	-10	0.0	0.4	1.1	2.2	3.4	4.7	5.8	6.9	8.0	9.1	10.2	11.3	12.4	13.5	14.6	15.7	16.8	17.9	19.0	78.3	77.9
	0	0.0	0.4	1.1	2.2	3.4	4.7	5.8	6.9	8.0	9.1	10.2	11.3	12.4	13.5	14.6	15.7	16.8	17.9	19.0	78.6	78.2
	10	0.0	0.4	1.1	2.2	3.4	4.7	5.8	6.9	8.0	9.1	10.2	11.3	12.4	13.5	14.6	15.7	16.8	17.9	19.0	74.2	73.7
	20	0.0	0.4	1.1	2.1	3.3	4.5	5.6	6.7	7.8	8.9	10.0	11.1	12.2	13.3	14.4	15.5	16.6	17.7	18.8	65.4	64.9
	30	0.0	0.3	1.0	2.0	3.1	4.2	5.2	6.3	7.4	8.5	9.6	10.7	11.8	12.9	14.0	15.1	16.2	17.3	18.4	53.4	52.8
	40	0.0	0.3	0.9	1.7	2.7	3.8	4.7	5.7	6.7	7.7	8.7	9.7	10.7	11.7	12.7	13.7	14.7	15.7	16.7	39.4	38.9
	50	0.0	0.2	0.7	1.4	2.3	3.2	3.9	4.7	5.5	6.3	7.1	7.9	8.7	9.5	10.3	11.1	11.9	12.7	13.5	25.4	24.9
	60	0.0	0.2	0.5	1.1	1.8	2.5	3.1	3.6	4.2	4.8	5.4	6.0	6.6	7.2	7.8	8.4	9.0	9.6	10.2	13.2	12.7
	70	0.0	0.1	0.3	0.7	1.2	1.6	2.1	2.4	2.8	3.2	3.6	4.0	4.4	4.8	5.2	5.6	6.0	6.4	6.8	4.6	4.0
	80	0.0	0.1	0.2	0.3	0.6	0.8	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	0.6	0.1
	90	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5	2.6	0.0
	Flux(T)	0.4	3.8	11.8	23.5	37.4	51.4	63.9	73.2	78.3	78.6	74.2	65.4	53.4	39.4	25.4	13.2	4.6	0.6	0.0	699	
	Flux(E)	0.0	3.1	11.2	22.9	36.8	50.8	63.3	72.7	77.9	78.2	73.7	64.9	52.8	38.9	24.9	12.7	4.0	0.1	0.0	689	

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

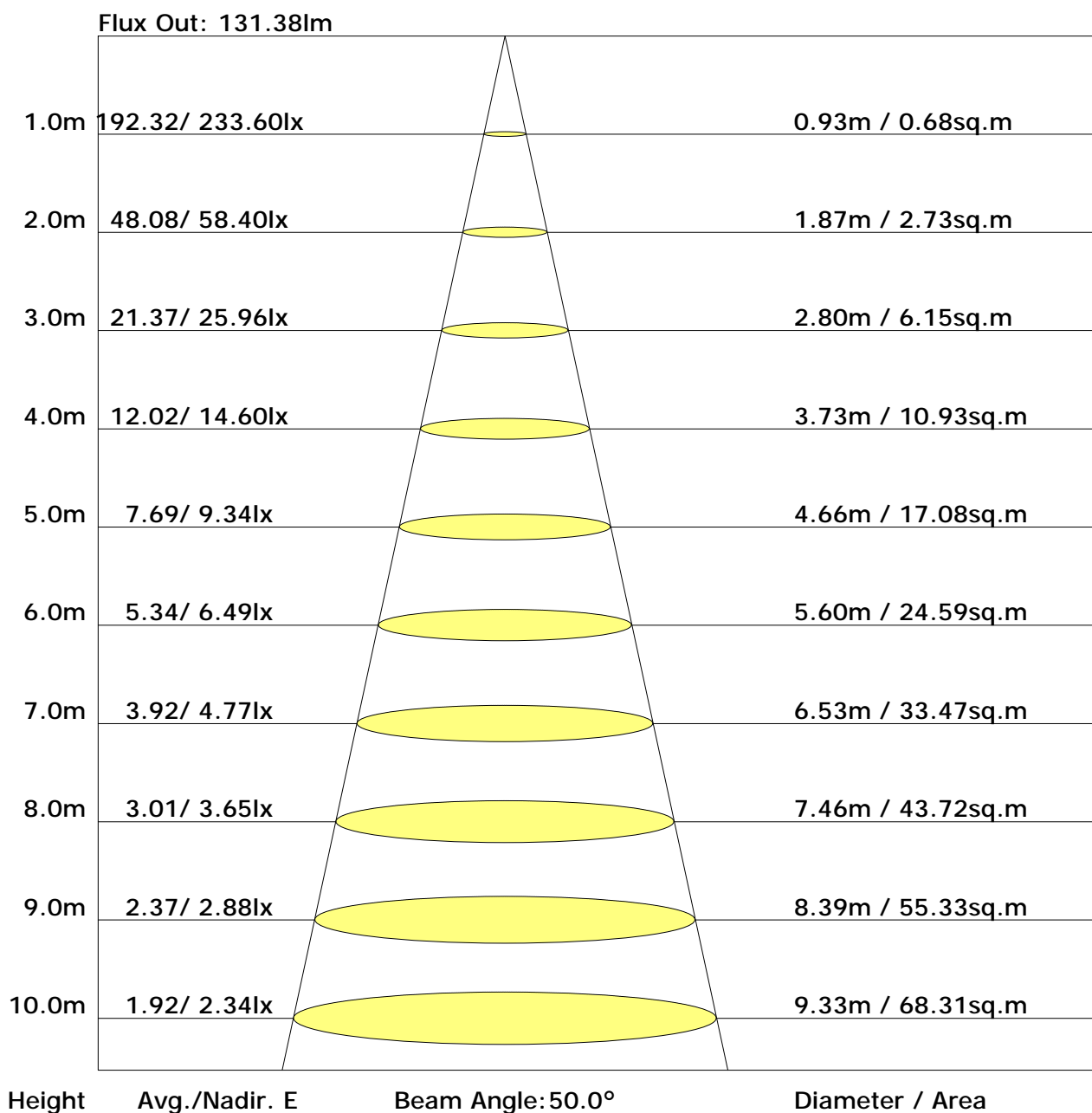
Test Device: GPM-1800B

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	28.2	29.9	28.6	30.2	30.5	27.6	29.3	28.0	29.6	29.9
3H	30.1	31.6	30.5	32.0	32.3	29.3	30.8	29.7	31.1	31.5
4H	30.8	32.2	31.3	32.6	33.0	29.8	31.2	30.2	31.6	32.0
6H	31.4	32.7	31.8	33.0	33.4	30.1	31.4	30.6	31.8	32.2
8H	31.5	32.8	32.0	33.2	33.6	30.2	31.4	30.6	31.8	32.2
12H	31.6	32.8	32.1	33.2	33.7	30.2	31.3	30.6	31.7	32.2
X=4H Y=2H	28.8	30.2	29.2	30.6	31.0	28.3	29.7	28.7	30.0	30.4
3H	30.9	32.1	31.4	32.5	32.9	30.1	31.3	30.6	31.7	32.1
4H	31.8	32.8	32.2	33.3	33.7	30.8	31.9	31.2	32.3	32.7
6H	32.4	33.3	32.9	33.8	34.3	31.2	32.1	31.7	32.6	33.0
8H	32.6	33.5	33.1	33.9	34.4	31.3	32.1	31.7	32.6	33.1
12H	32.8	33.6	33.3	34.0	34.5	31.3	32.0	31.7	32.5	33.0
X=8H Y=4H	32.0	32.9	32.5	33.4	33.8	31.1	32.0	31.6	32.4	32.9
6H	32.8	33.5	33.3	34.0	34.5	31.6	32.3	32.1	32.8	33.3
8H	33.1	33.7	33.6	34.2	34.7	31.7	32.3	32.2	32.8	33.3
12H	33.3	33.9	33.8	34.4	34.9	31.7	32.3	32.2	32.8	33.4
X=12H Y=4H	32.1	32.8	32.5	33.3	33.8	31.1	31.9	31.6	32.4	32.9
6H	32.8	33.5	33.4	34.0	34.5	31.6	32.3	32.2	32.8	33.3
8H	33.1	33.7	33.7	34.2	34.8	31.8	32.3	32.3	32.8	33.4

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	0.91	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		0.42	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	0.95
	0.20		0.41	0.52	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	0.86	0.90
0.00	0.00	0.00	0.39	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	1.01	0.84	0.71	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	0.68	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	0.77	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	0.15	
<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
Rating:5W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											