

Report No.:

Test Time: 2018/8/31 17:49

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RIBBONLYTE

Luminaire Description: RBS2245.060PH 1FT(320mm)

Luminous Length (mm): 320

Luminous Width (mm): 10

Luminous Height (mm): 1

Voltage: 24.0 V

Current: 0.222 A

Power: 5.34 W

Power Factor: 1.000

## Photometric Results

CIE Class: Direct

Measurement Flux: 696.3 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H118.9

Vertical Diffuse Angle(50%): V118.7

Luminaire Efficacy Rating (LER): 130

Max. Intensity: 227.28 cd

Total Rated Lamp Lumens: 696.3 lm

Efficiency: 100%

Upward Ratio: 1%

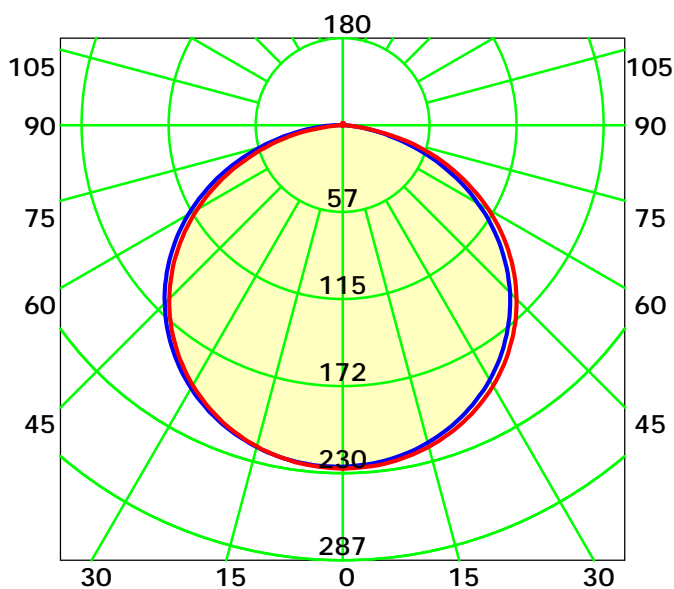
Central Intensity: 225.61 cd

Pos of Max. Intensity: H150 V3

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:

Test Type: TYPE C

Temperature: 25

Operator: Aaron

Gamma Plane (°):0.0-180.0: 1.0

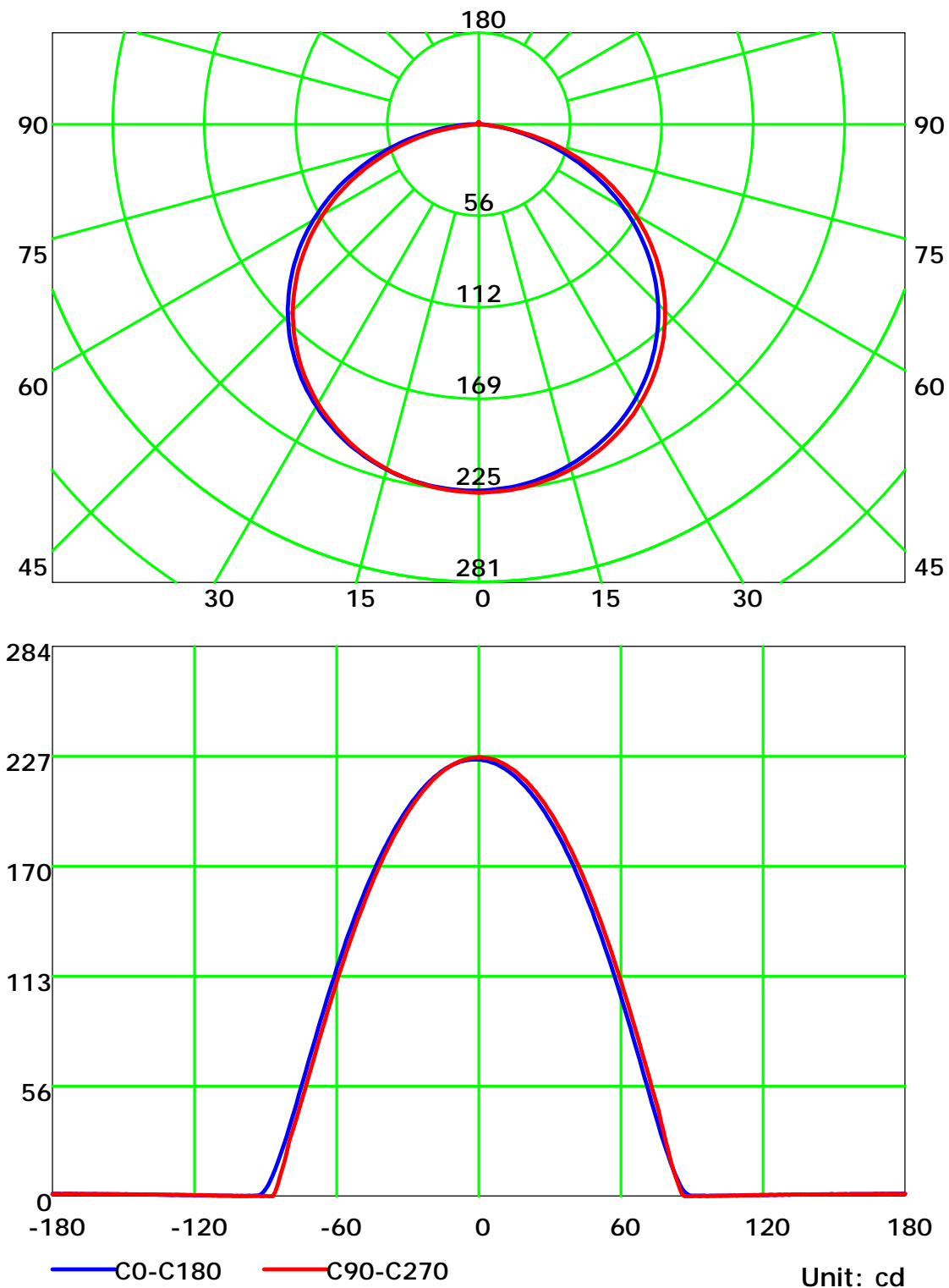
Test Device: GPM-1800B

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

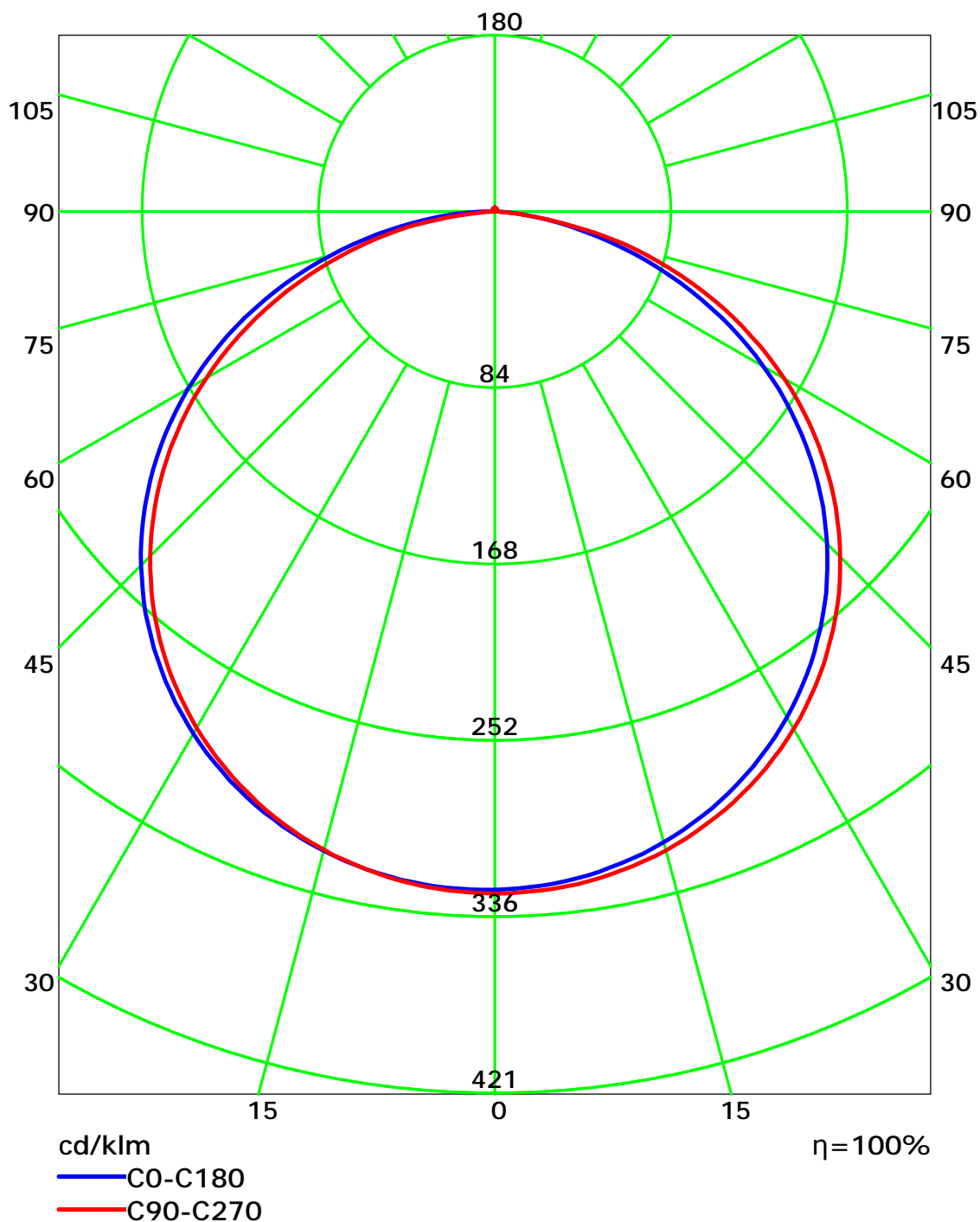
Test Device: GPM-1800B

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:

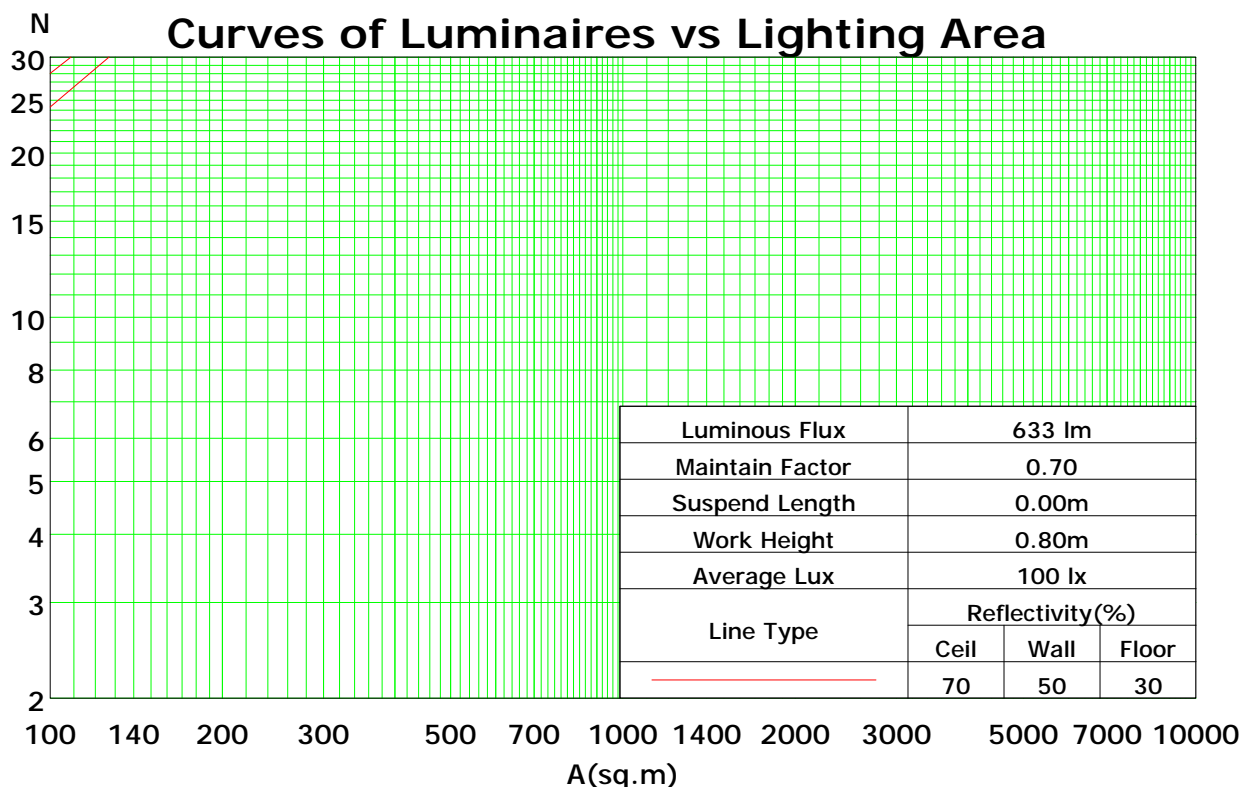
## Coefficients Of Utilization - Zonal Cavity Method

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	103	99	95	106	101	97	94	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	79	70	64	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	54	79	68	60	53	65	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	54	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	35	46	39	34	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	42	36	31	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	28	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

Spacing Criteria (0-180): 1.30

Spacing Criteria (90-270): 1.30

Spacing Criteria (Diagonal): 1.43



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

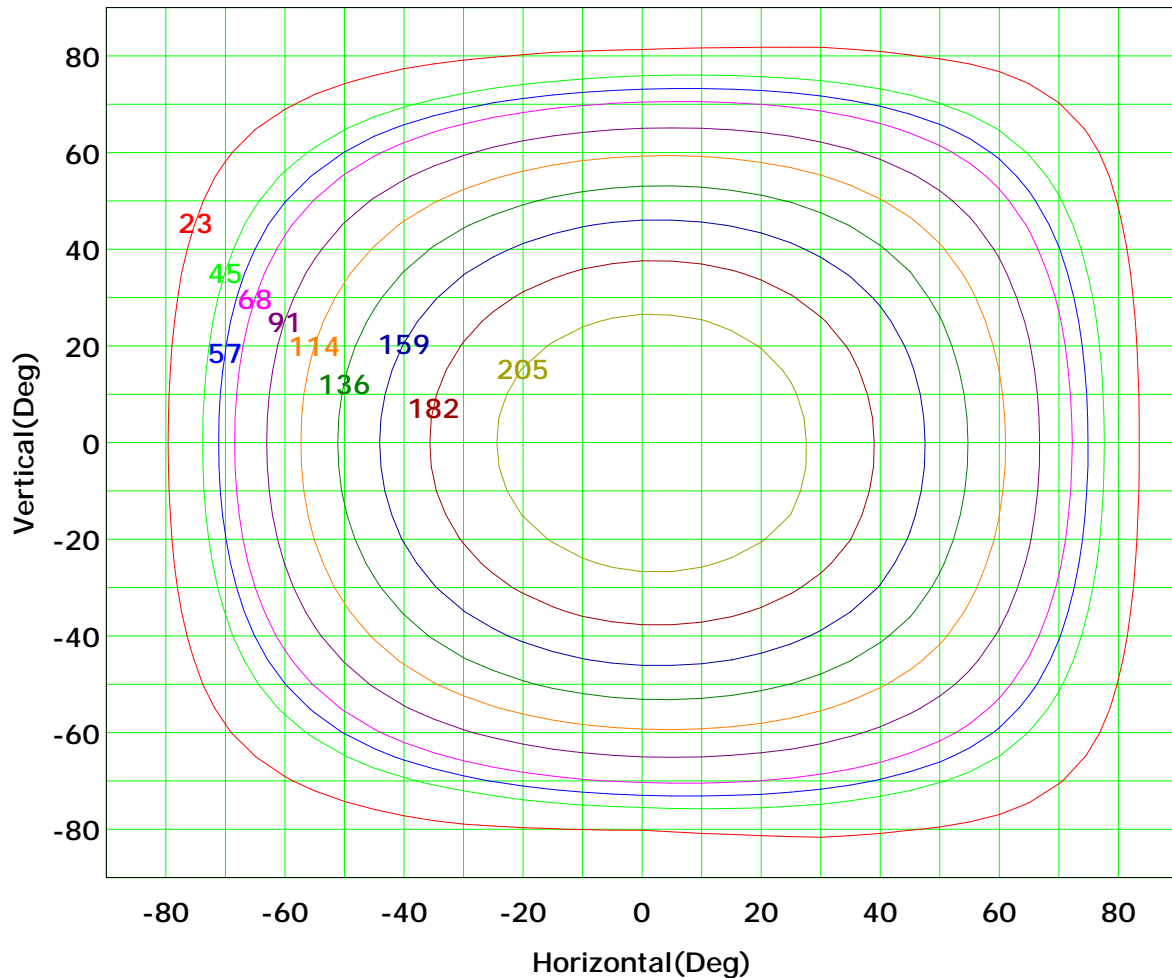
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Isocandela (rectangle)



I<sub>max</sub> (100%): 227 cd

( 10%):	23 cd	( 20%):	45 cd
( 25%):	57 cd	( 30%):	68 cd
( 40%):	91 cd	( 50%):	114 cd
( 60%):	136 cd	( 70%):	159 cd
( 80%):	182 cd	( 90%):	205 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

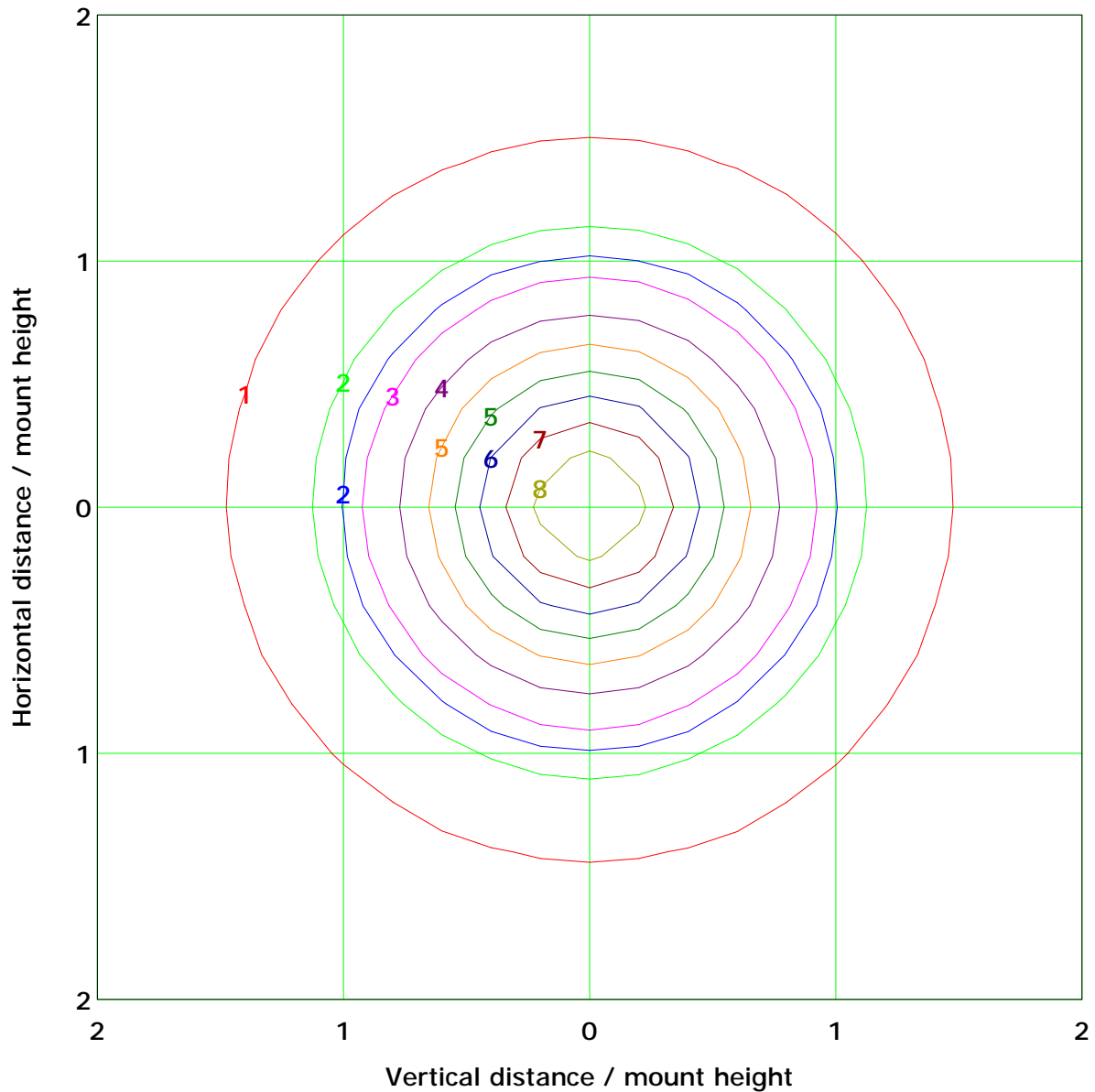
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 9.1 lx

( 10%): 0.9 lx	( 20%): 1.8 lx
( 25%): 2.3 lx	( 30%): 2.7 lx
( 40%): 3.6 lx	( 50%): 4.5 lx
( 60%): 5.5 lx	( 70%): 6.4 lx
( 80%): 7.3 lx	( 90%): 8.2 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

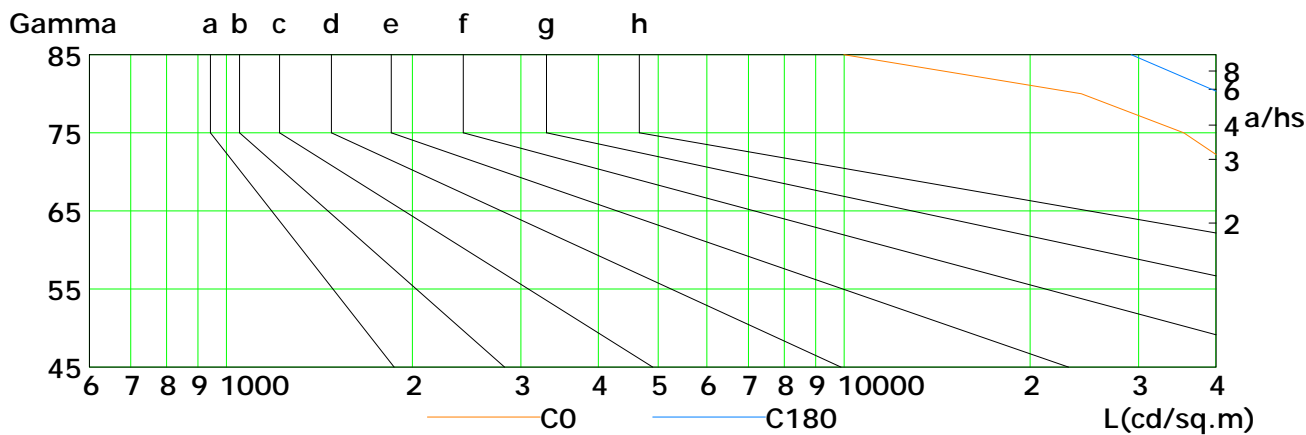
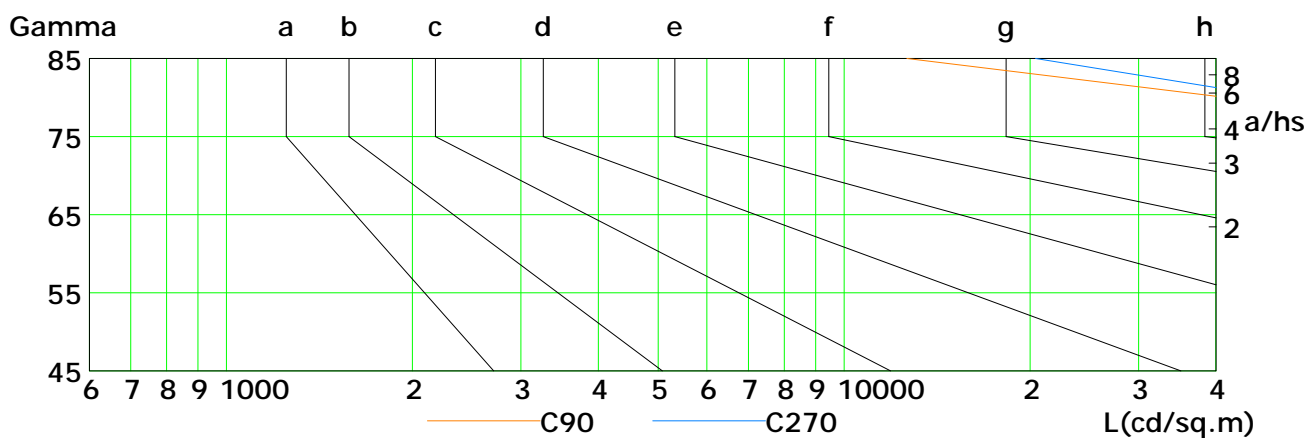
Humidity: 60%

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	62832	60906	58410	54988	50481	44066	35487	24230	9989
C90	71587	71230	70459	69089	66944	63269	57466	41714	12636
C180	66874	65980	64675	62777	59906	55721	49757	40962	29163
C270	71468	71041	70231	68927	66760	63287	58266	50608	20425

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

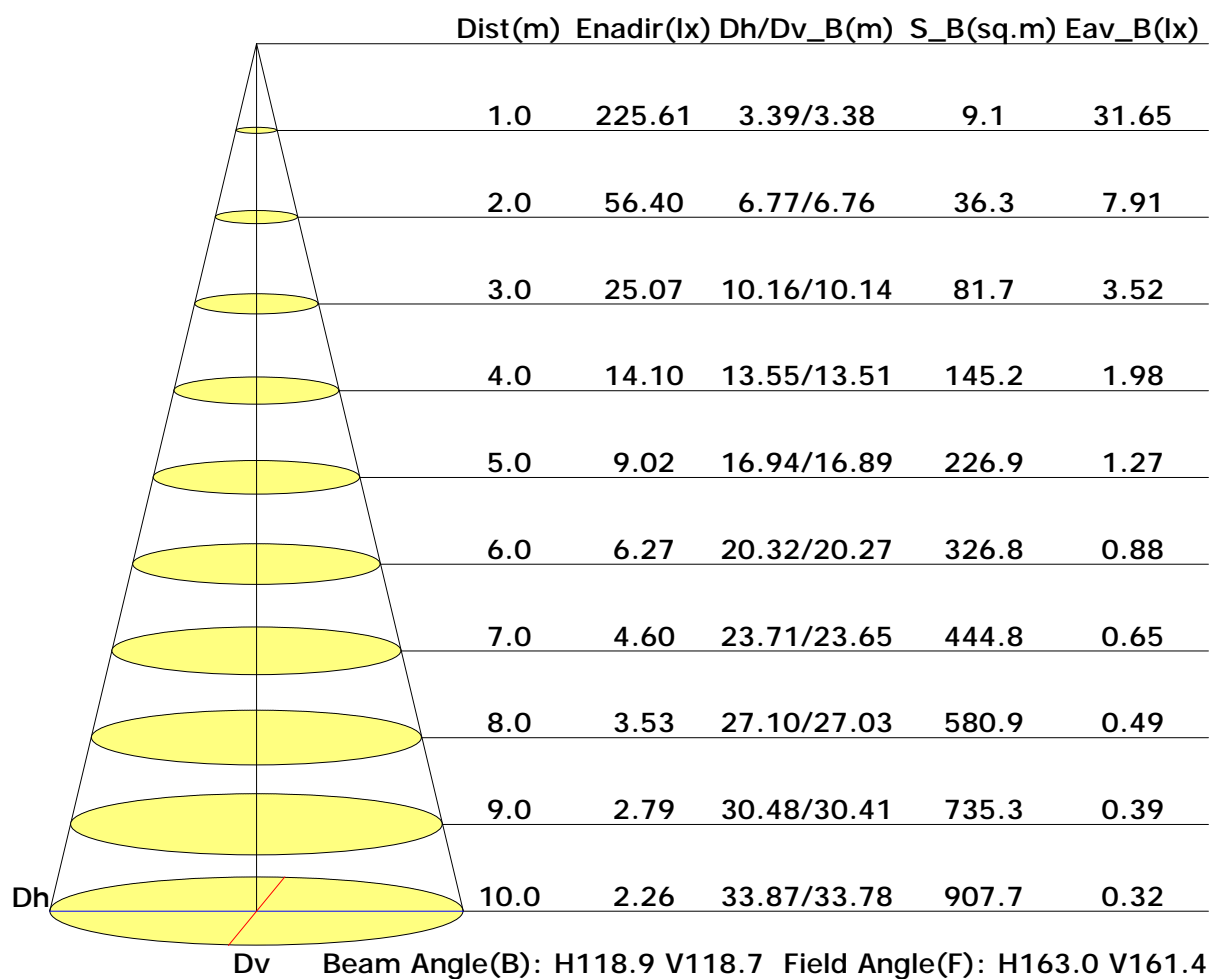
Test Device: GPM-1800B

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

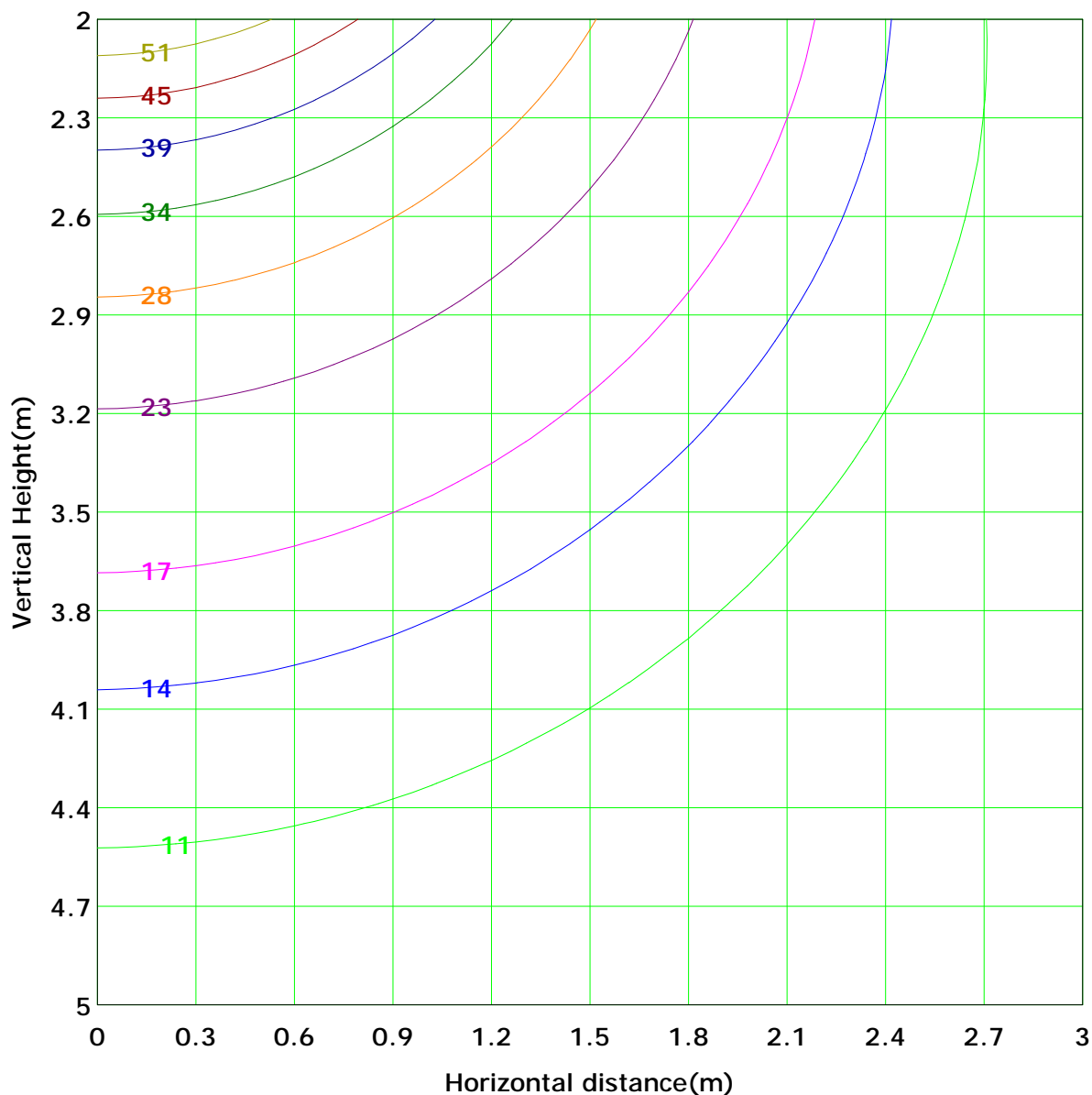
Distance: 9.028 m

Humidity: 60%

Inspector:



## Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 56.4 lx
( 10%): 5.6 lx	( 20%): 11.3 lx	
( 25%): 14.1 lx	( 30%): 16.9 lx	
( 40%): 22.6 lx	( 50%): 28.2 lx	
( 60%): 33.8 lx	( 70%): 39.5 lx	
( 80%): 45.1 lx	( 90%): 50.8 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:

## 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	0.1	0.1	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.7	0.3
	-80	0.0	0.1	0.3	0.5	0.8	1.1	1.3	1.4	1.5	1.4	1.3	1.1	0.8	0.5	0.3	0.1	0.0	0.0	0.3	5.2	4.7
	-70	0.0	0.2	0.5	0.9	1.4	1.9	2.3	2.6	2.8	2.7	2.5	2.1	1.6	1.1	0.7	0.3	0.1	0.0	0.0	14.2	13.7
	-60	0.0	0.2	0.7	1.3	2.0	2.7	3.3	3.7	3.9	3.9	3.6	3.1	2.4	1.7	1.0	0.5	0.3	0.1	0.0	26.7	26.2
	-50	0.0	0.3	0.9	1.6	2.5	3.4	4.1	4.6	4.9	4.9	4.5	3.9	3.1	2.2	1.4	0.7	0.3	0.1	0.0	40.6	40.1
	-40	0.1	0.4	1.0	1.9	2.9	3.9	4.8	5.4	5.7	5.6	5.3	4.6	3.7	2.7	1.7	1.0	0.5	0.3	0.0	54.1	53.6
	-30	0.1	0.4	1.1	2.1	3.3	4.3	5.3	5.9	6.3	6.2	5.8	5.1	4.1	3.0	1.9	1.0	0.5	0.3	0.0	65.1	65.1
	-20	0.1	0.4	1.2	2.3	3.5	4.6	5.6	6.3	6.6	6.6	6.4	5.4	4.4	3.2	2.1	1.0	0.5	0.3	0.0	73.2	73.2
	-10	0.1	0.5	1.3	2.4	3.6	4.7	5.7	6.4	6.8	6.8	6.4	5.6	4.5	3.3	2.1	1.1	0.6	0.3	0.0	81.7	81.7
	0	0.1	0.5	1.3	2.4	3.6	4.7	5.7	6.4	6.8	6.8	6.4	5.6	4.5	3.3	2.1	1.1	0.6	0.3	0.0	90.0	90.0
	10	0.1	0.5	1.3	2.4	3.6	4.7	5.7	6.4	6.8	6.8	6.4	5.6	4.5	3.3	2.1	1.1	0.6	0.3	0.0	98.3	98.3
	20	0.1	0.4	1.2	2.3	3.5	4.6	5.6	6.3	6.7	6.6	6.2	5.4	4.4	3.2	2.1	1.0	0.5	0.3	0.0	106.7	106.7
	30	0.1	0.4	1.2	2.2	3.3	4.4	5.3	6.0	6.3	6.2	5.8	5.1	4.1	3.0	1.9	0.9	0.3	0.2	0.0	115.0	115.0
	40	0.1	0.4	1.0	1.9	3.0	4.0	4.8	5.4	5.7	5.7	5.3	4.6	3.7	2.7	1.7	0.8	0.2	0.1	0.0	123.3	123.3
	50	0.0	0.3	0.9	1.7	2.5	3.4	4.1	4.7	4.9	4.9	4.5	3.9	3.1	2.2	1.4	0.7	0.2	0.1	0.0	131.7	131.7
	60	0.0	0.2	0.7	1.3	2.0	2.7	3.3	3.7	3.9	3.9	3.6	3.1	2.4	1.7	1.0	0.5	0.1	0.0	0.0	140.0	140.0
	70	0.0	0.2	0.5	0.9	1.4	1.9	2.3	2.6	2.8	2.7	2.5	2.1	1.6	1.1	0.7	0.3	0.1	0.0	0.0	148.3	148.3
	80	0.0	0.1	0.3	0.5	0.8	1.1	1.3	1.4	1.5	1.4	1.3	1.1	0.8	0.5	0.3	0.1	0.0	0.0	0.0	156.7	156.7
	90	0.0	0.1	0.1	0.2	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	165.0	165.0
	Flux(T)	0.7	5.2	14.2	26.7	40.6	54.1	65.6	73.7	77.5	76.8	71.5	62.2	50.0	36.1	22.4	10.9	3.3	0.3	0.3	692	692
	Flux(E)	0.3	4.7	13.7	26.2	40.1	53.6	65.1	73.2	77.1	76.4	71.1	61.7	49.4	35.5	21.9	10.4	2.6	0.0	0.0	683	683

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

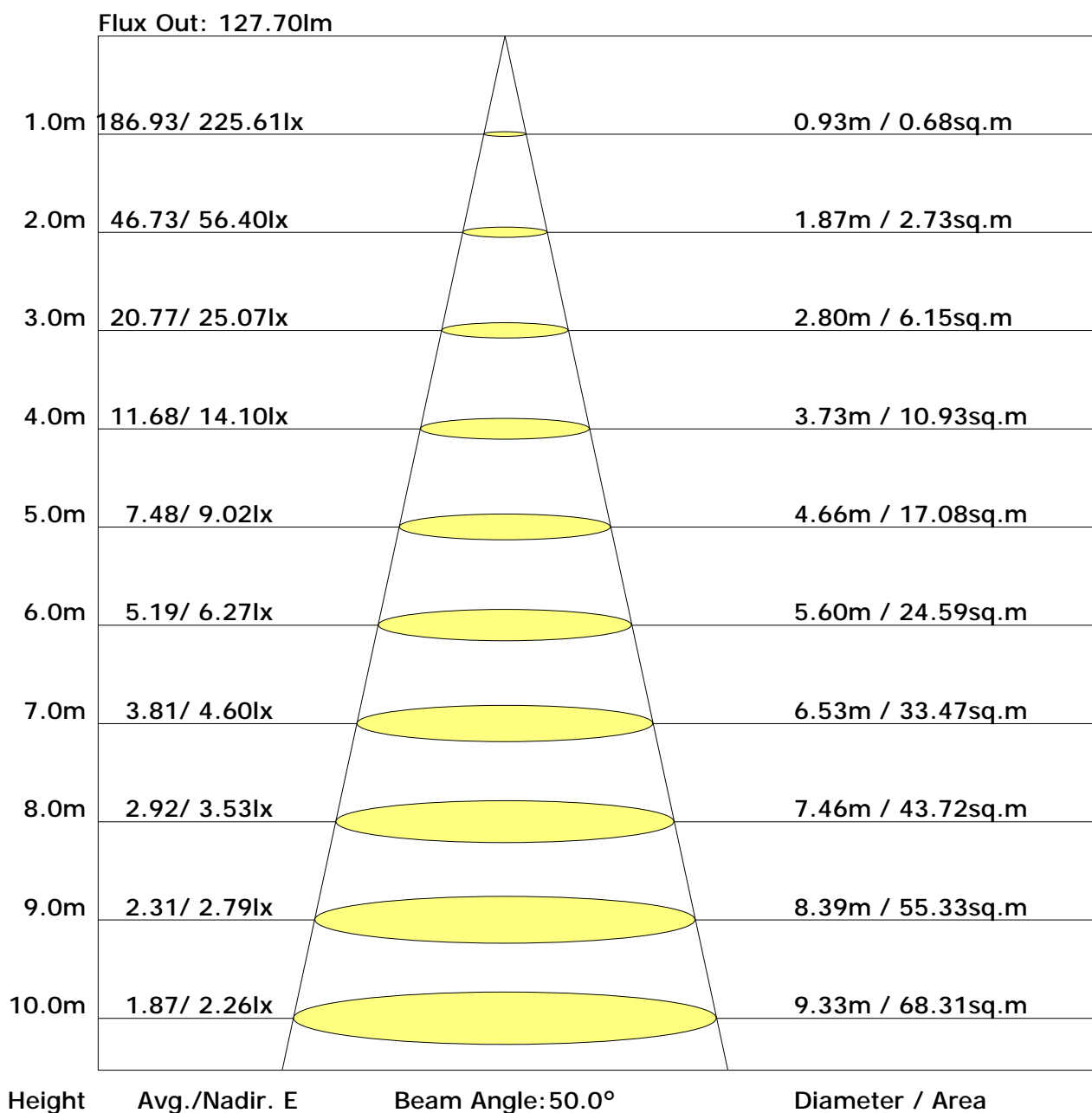
Test Device: GPM-1800B

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	27.7	29.3	28.1	29.7	30.0	27.8	29.5	28.2	29.8	30.1
3H	29.4	30.9	29.8	31.2	31.6	29.6	31.1	30.0	31.4	31.8
4H	30.0	31.4	30.4	31.7	32.1	30.2	31.6	30.6	31.9	32.3
6H	30.3	31.6	30.7	32.0	32.4	30.5	31.8	30.9	32.2	32.6
8H	30.4	31.6	30.8	32.0	32.4	30.5	31.8	31.0	32.2	32.6
12H	30.4	31.6	30.8	32.0	32.4	30.5	31.7	31.0	32.1	32.6
X=4H Y=2H	28.3	29.7	28.7	30.0	30.4	28.5	29.9	28.9	30.3	30.7
3H	30.2	31.3	30.6	31.8	32.2	30.4	31.6	30.9	32.0	32.4
4H	30.8	31.9	31.3	32.3	32.8	31.1	32.2	31.6	32.6	33.1
6H	31.3	32.2	31.7	32.7	33.1	31.6	32.5	32.0	33.0	33.4
8H	31.4	32.2	31.8	32.7	33.2	31.6	32.5	32.1	33.0	33.5
12H	31.4	32.2	31.9	32.7	33.2	31.7	32.4	32.1	32.9	33.4
X=8H Y=4H	31.1	31.9	31.5	32.4	32.9	31.5	32.3	31.9	32.8	33.3
6H	31.6	32.3	32.1	32.8	33.3	32.0	32.7	32.5	33.2	33.7
8H	31.7	32.4	32.2	32.9	33.4	32.1	32.8	32.6	33.3	33.8
12H	31.8	32.4	32.3	32.9	33.4	32.2	32.7	32.7	33.2	33.8
X=12H Y=4H	31.1	31.9	31.6	32.4	32.8	31.5	32.3	32.0	32.8	33.2
6H	31.6	32.3	32.1	32.7	33.3	32.1	32.7	32.6	33.2	33.7
8H	31.8	32.3	32.3	32.8	33.4	32.2	32.8	32.7	33.3	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 = 1.50								
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	0.59	0.67	0.75	0.80	0.87	0.92	0.96	1.00	1.03
	0.30		0.51	0.59	0.67	0.73	0.81	0.87	0.91	0.96	1.00
	0.20		0.45	0.54	0.62	0.68	0.76	0.82	0.86	0.92	0.97
0.50	0.50	0.20	0.57	0.65	0.72	0.77	0.84	0.89	0.92	0.96	0.99
	0.30		0.50	0.58	0.66	0.71	0.79	0.84	0.88	0.93	0.96
	0.20		0.45	0.53	0.61	0.66	0.74	0.80	0.84	0.90	0.93
0.30	0.50	0.20	0.55	0.63	0.70	0.75	0.81	0.85	0.88	0.92	0.95
	0.30		0.49	0.57	0.64	0.70	0.77	0.81	0.85	0.90	0.93
	0.20		0.45	0.52	0.60	0.65	0.73	0.78	0.82	0.87	0.90
0.00	0.00	0.00	0.42	0.50	0.57	0.62	0.69	0.74	0.78	0.83	0.86
<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 = 1.50								
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	0.97	0.82	0.69	0.60	0.48	0.40	0.34	0.27	0.22
	0.30		0.81	0.70	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
0.50	0.50	0.20	0.93	0.79	0.66	0.58	0.46	0.42	0.33	0.25	0.21
	0.30		0.79	0.68	0.59	0.52	0.42	0.35	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
0.30	0.50	0.20	0.90	0.76	0.64	0.55	0.44	0.36	0.31	0.24	0.20
	0.30		0.77	0.67	0.57	0.50	0.41	0.34	0.29	0.23	0.19
	0.20		0.67	0.60	0.52	0.46	0.38	0.32	0.28	0.22	0.18
0.00	0.00	0.00	0.57	0.50	0.42	0.37	0.30	0.25	0.22	0.17	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 = 1.50								
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	0.18	0.19	0.20	0.21	0.21	0.21	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	0.10	0.12	0.13	0.14	0.16	0.17
0.50	0.50	0.20	0.16	0.17	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	0.19	0.20	0.20	0.20
	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>											