

Report No.:

Test Time: 2018/8/29 11:06

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RIBBONLYTE

Luminaire Description: RBS2242.235PH 1FT(300mm)

Luminous Length (mm): 300

Luminous Width (mm): 8

Luminous Height (mm): 1

Voltage: 24.0 V

Current: 0.086 A

Power: 2.06 W

Power Factor: 1.000

## Photometric Results

CIE Class: Direct

Measurement Flux: 277.9 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H117.5

Vertical Diffuse Angle(50%): V117.3

Luminaire Efficacy Rating (LER): 135

Max. Intensity: 92.05 cd

Total Rated Lamp Lumens: 277.9 lm

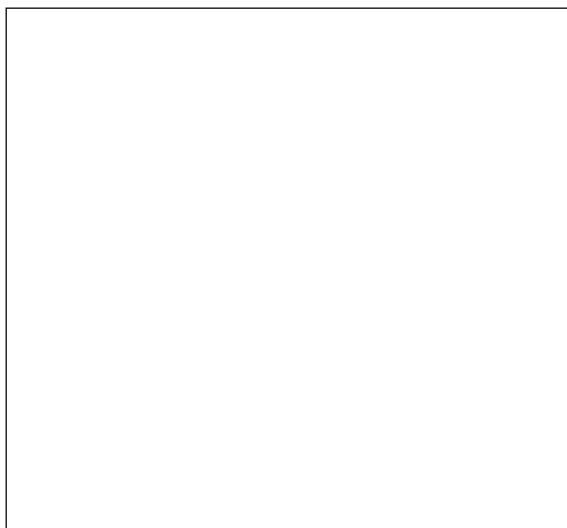
Efficiency: 100%

Upward Ratio: 1%

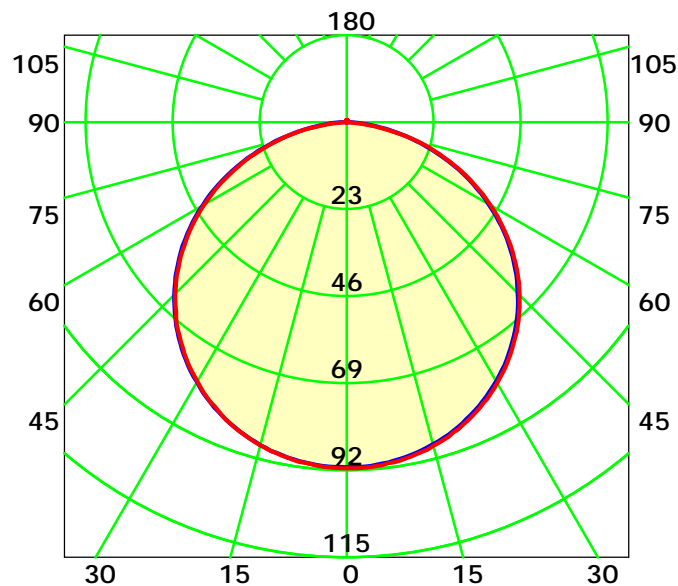
Central Intensity: 91.6 cd

Pos of Max. Intensity: H330 V1

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

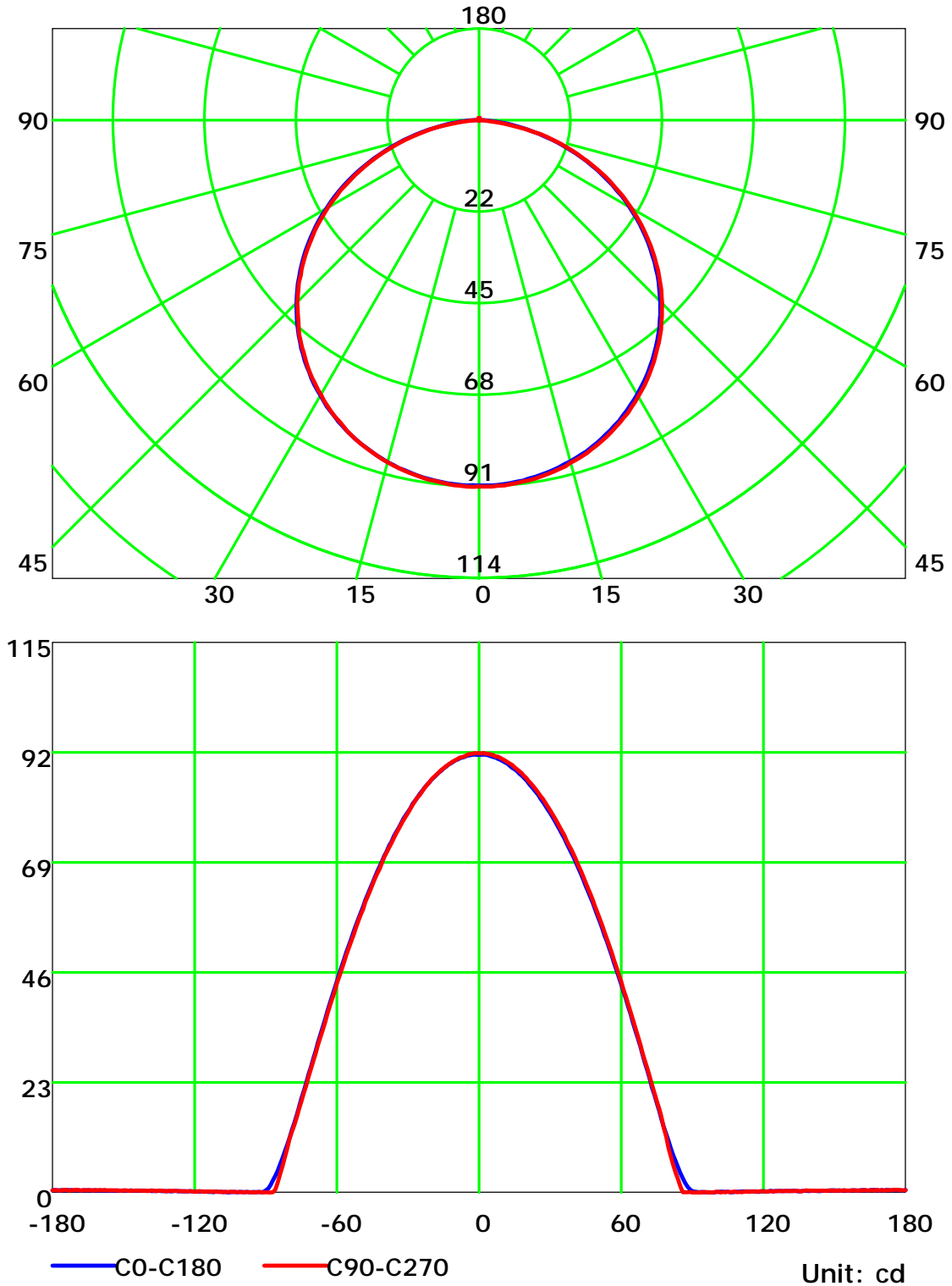
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

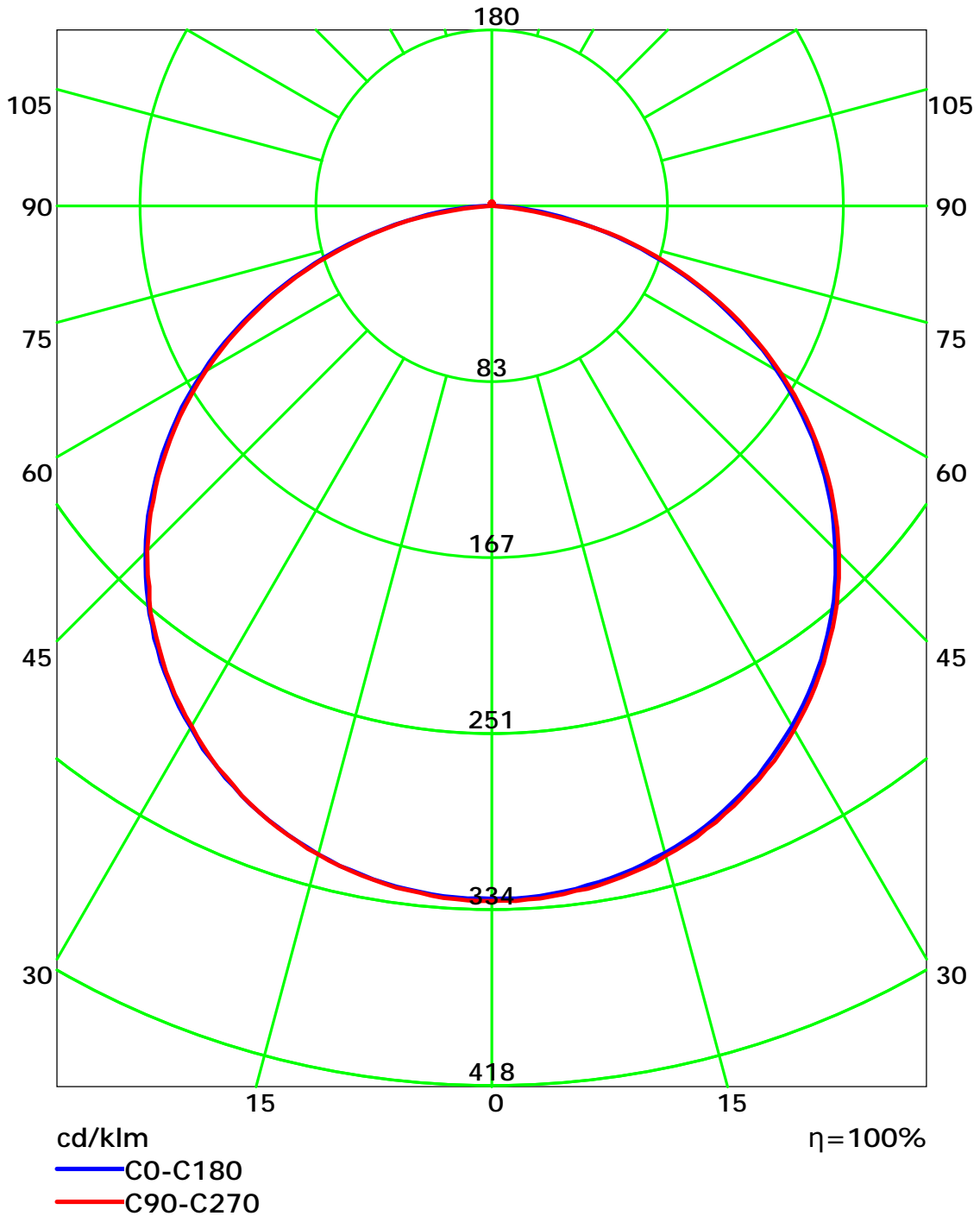
## Luminous Intensity Distribution Curve



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:

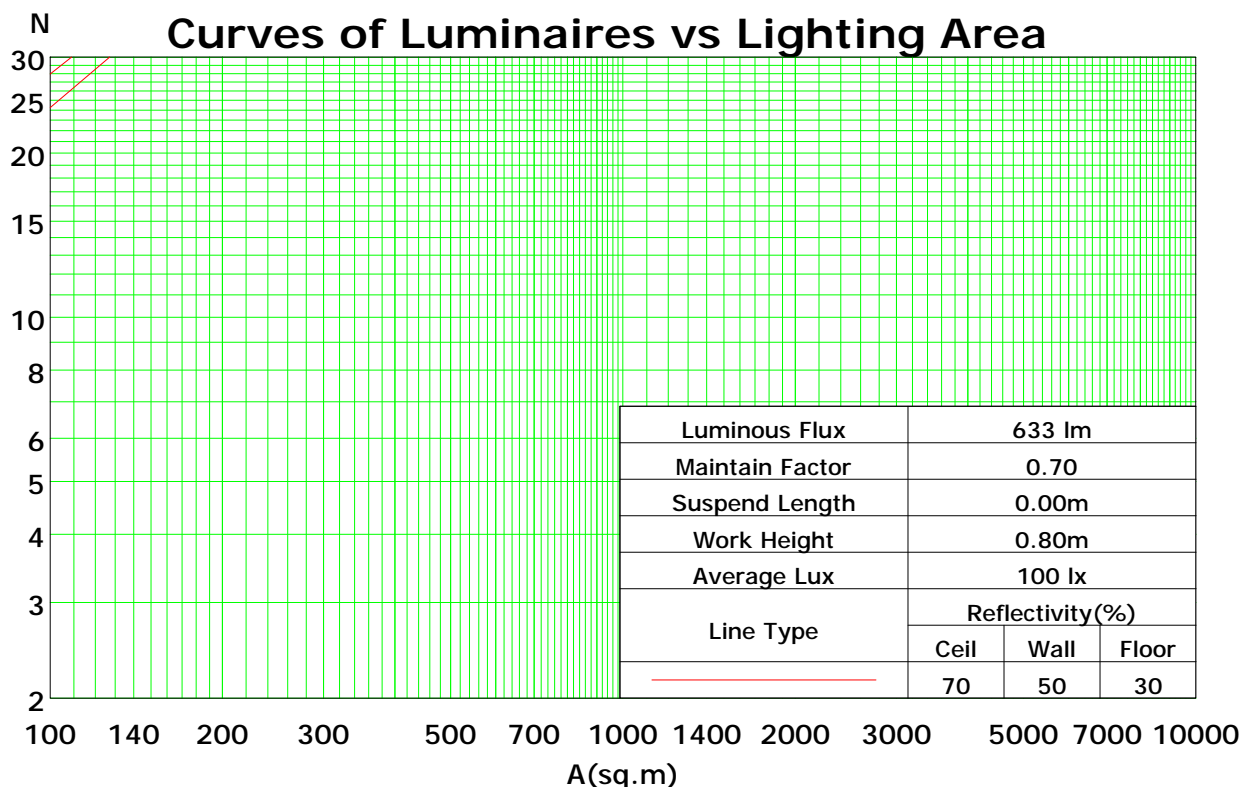
## Coefficients Of Utilization - Zonal Cavity Method

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	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	68	64	60	57
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	55	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	39	51	44	39	49	43	39	37
7	64	50	42	35	62	50	41	35	48	40	35	46	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

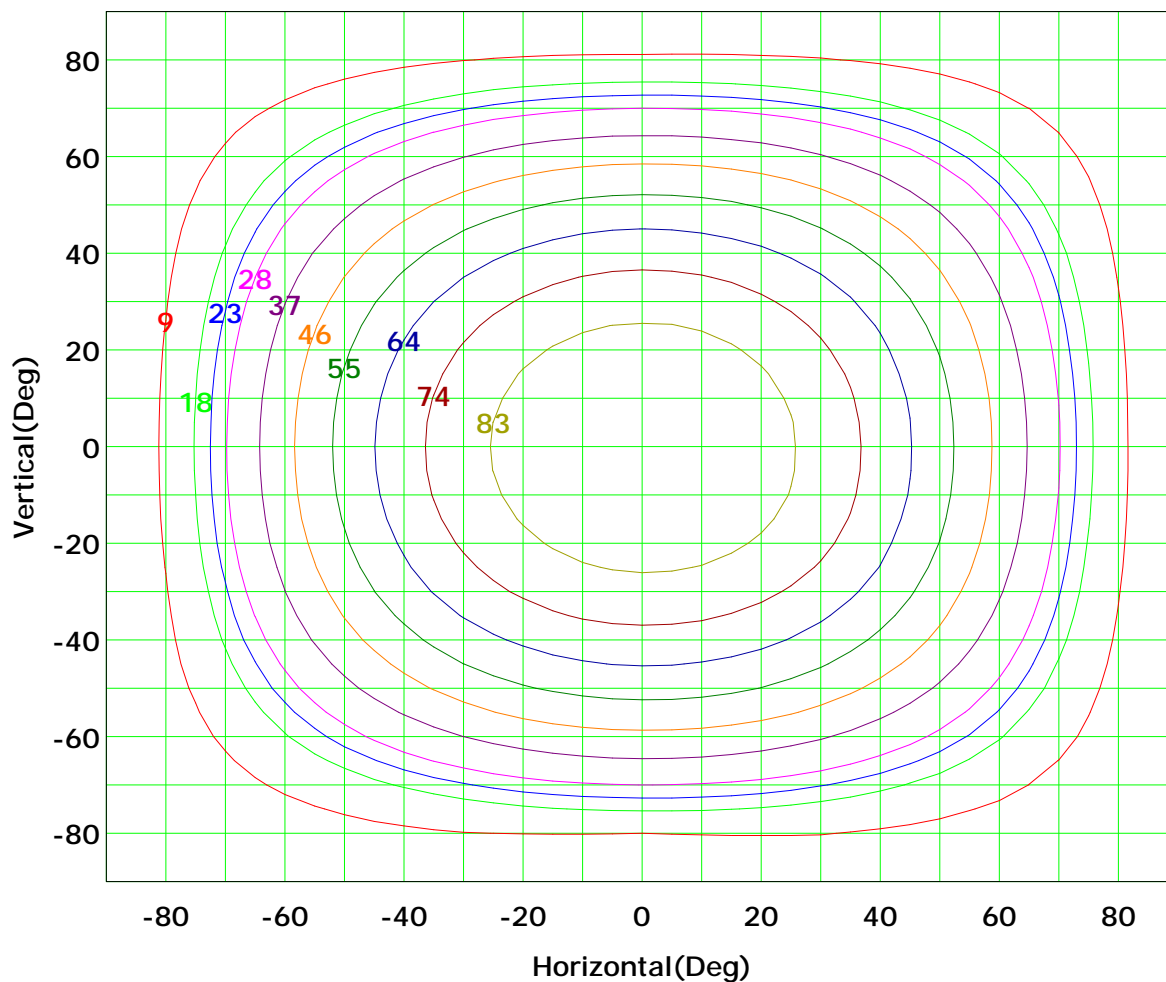
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Isocandela (rectangle)



I<sub>max</sub> (100%): 92 cd

( 10%):	9 cd	( 20%):	18 cd
( 25%):	23 cd	( 30%):	28 cd
( 40%):	37 cd	( 50%):	46 cd
( 60%):	55 cd	( 70%):	64 cd
( 80%):	74 cd	( 90%):	83 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

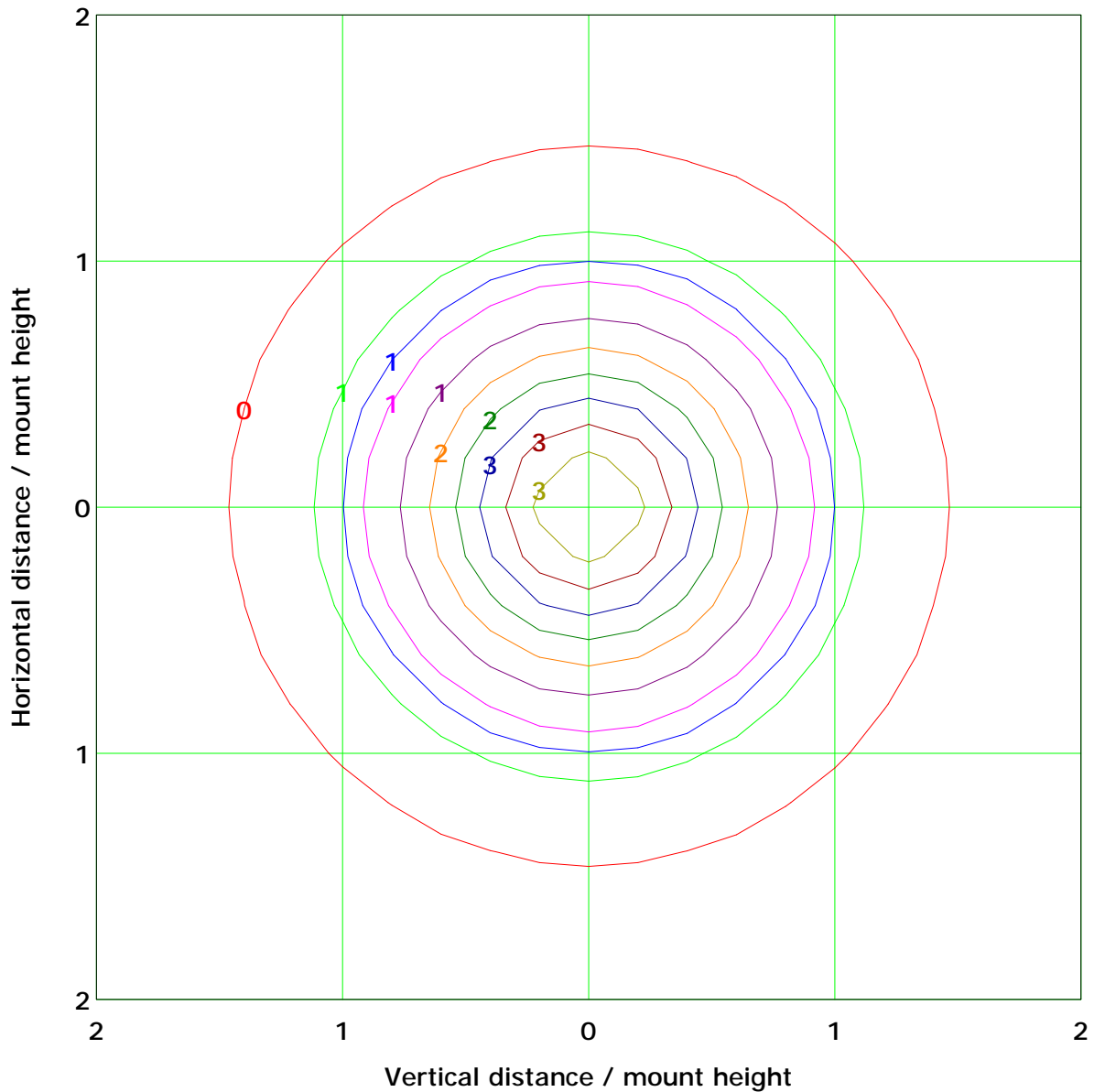
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 3.7 lx

( 10%): 0.4 lx	( 20%): 0.7 lx
( 25%): 0.9 lx	( 30%): 1.1 lx
( 40%): 1.5 lx	( 50%): 1.8 lx
( 60%): 2.2 lx	( 70%): 2.6 lx
( 80%): 2.9 lx	( 90%): 3.3 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

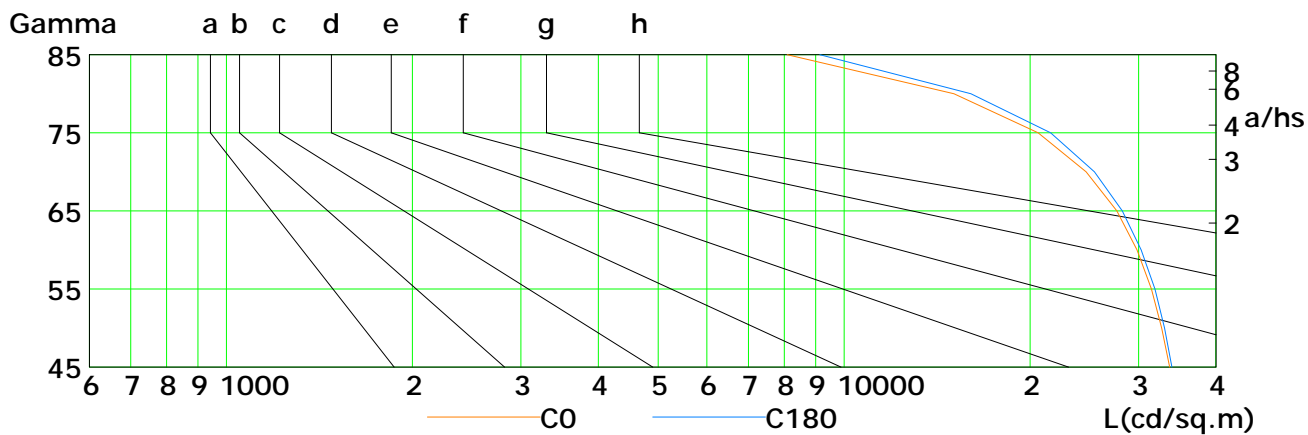
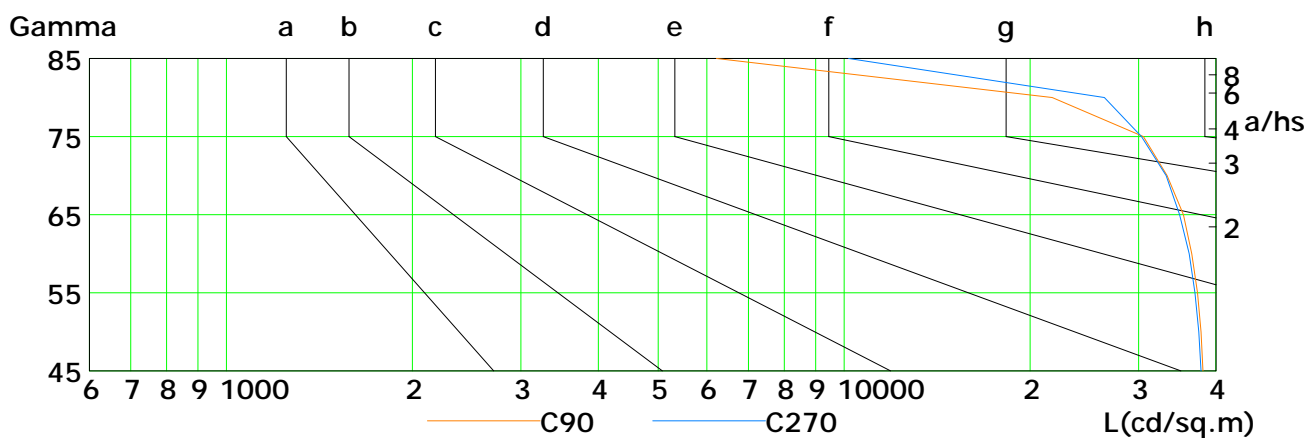
Humidity: 60%

Inspector:

## 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	33658	32683	31449	29826	27648	24665	20616	15066	8090
C90	38133	37835	37328	36564	35437	33355	30546	21736	6217
C180	33936	33021	31855	30278	28231	25427	21593	16049	9133
C270	37851	37512	36981	36224	34947	33222	30307	26399	10178

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

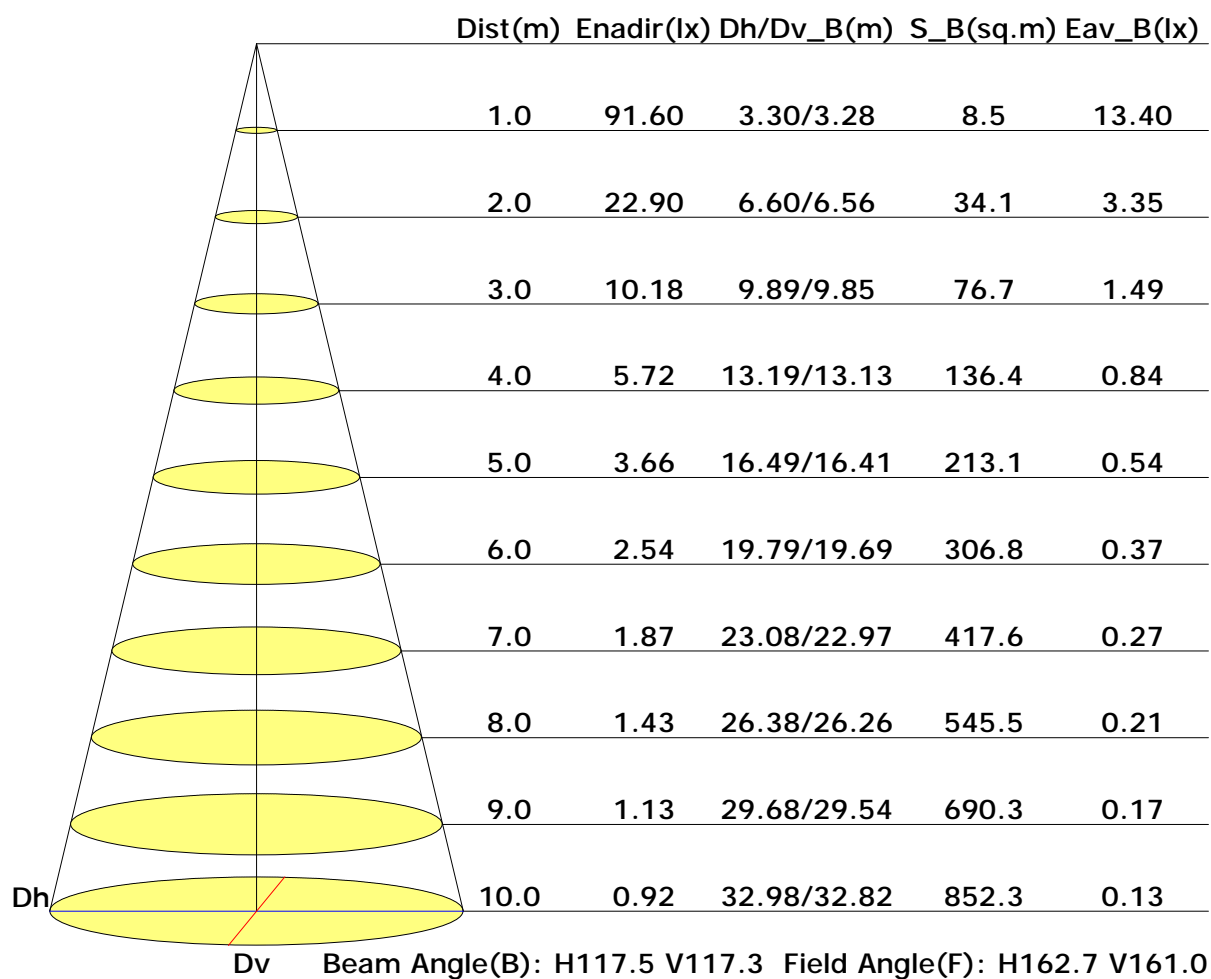
Test Device: GPM-1800B

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

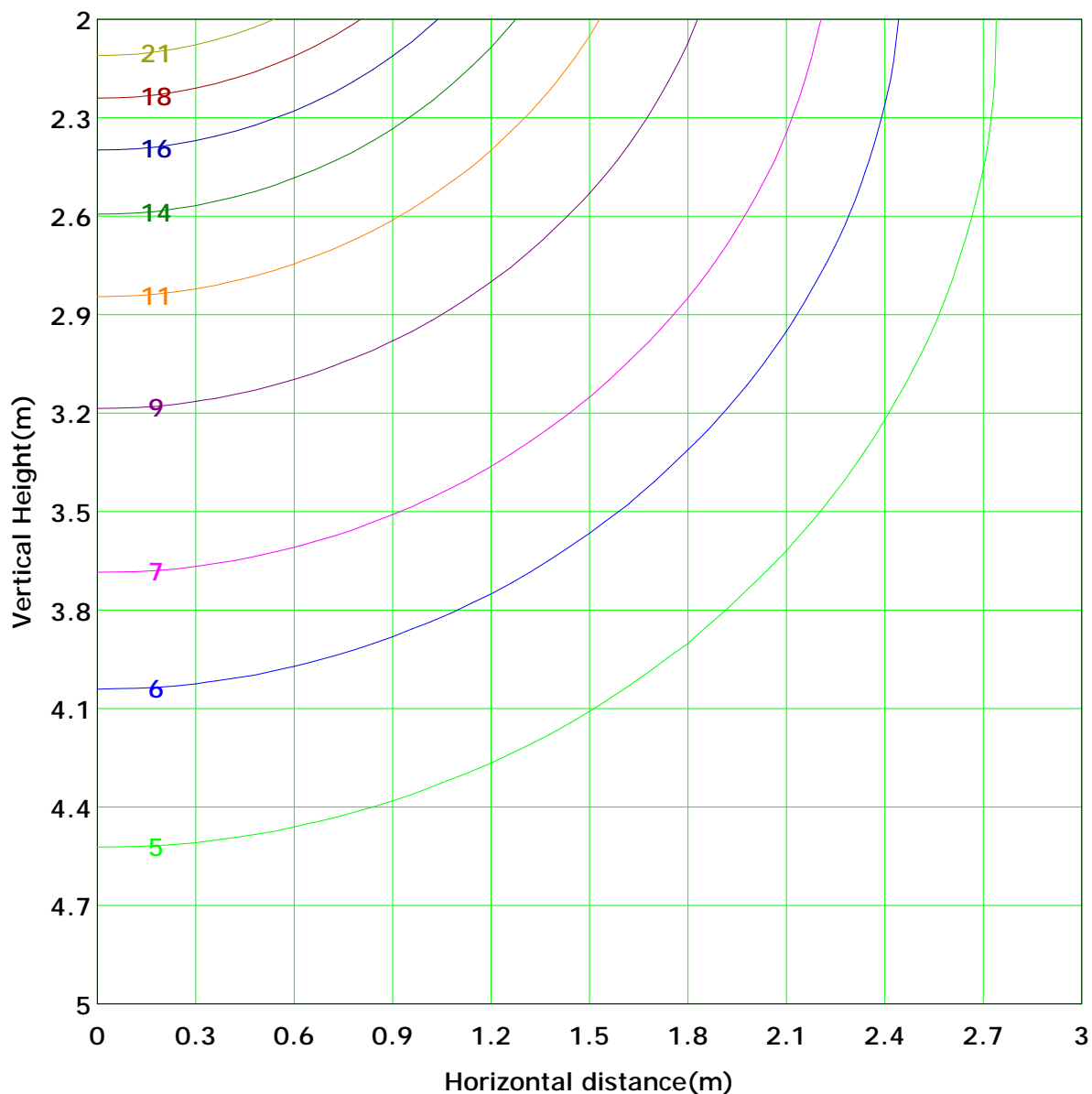
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

## Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 22.9 lx
( 10%): 2.3 lx	( 20%): 4.6 lx	
( 25%): 5.7 lx	( 30%): 6.9 lx	
( 40%): 9.2 lx	( 50%): 11.4 lx	
( 60%): 13.7 lx	( 70%): 16.0 lx	
( 80%): 18.3 lx	( 90%): 20.6 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	0.0	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	0.0	0.0	0.2	0.0
	-80	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.3	0.0	1.7	1.5
	-70	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.0	1.1	1.1	1.0	0.9	0.9	0.7	0.6	0.5	0.4	0.3	0.0	5.1	4.8
	-60	0.0	0.1	0.2	0.5	0.7	1.0	1.3	1.6	1.8	1.9	1.8	1.6	1.5	1.3	1.2	1.0	0.9	0.7	0.0	9.9	9.6
	-50	0.0	0.1	0.3	0.6	1.0	1.3	1.7	2.1	2.4	2.5	2.4	2.1	2.0	1.8	1.6	1.4	1.2	1.0	0.0	15.4	15.2
	-40	0.0	0.1	0.4	0.7	1.1	1.5	1.9	2.3	2.6	2.8	2.7	2.5	2.3	2.1	1.9	1.7	1.5	1.3	0.0	20.9	20.7
	-30	0.0	0.1	0.4	0.8	1.3	1.7	2.1	2.5	2.8	3.0	2.9	2.7	2.5	2.3	2.1	1.9	1.7	1.5	0.0	25.7	25.5
	-20	0.0	0.2	0.5	0.9	1.4	1.8	2.2	2.6	2.9	3.1	3.0	2.8	2.6	2.4	2.2	2.0	1.8	1.6	0.0	29.2	29.0
	-10	0.0	0.2	0.5	0.9	1.4	1.8	2.2	2.6	2.9	3.1	3.0	2.8	2.6	2.4	2.2	2.0	1.8	1.6	0.0	31.0	30.8
	0	0.0	0.2	0.5	0.9	1.4	1.8	2.2	2.6	2.9	3.1	3.0	2.8	2.6	2.4	2.2	2.0	1.8	1.6	0.0	30.9	30.7
	10	0.0	0.2	0.5	0.9	1.4	1.8	2.2	2.6	2.9	3.1	3.0	2.8	2.6	2.4	2.2	2.0	1.8	1.6	0.0	29.0	28.8
	20	0.0	0.2	0.5	0.9	1.4	1.8	2.2	2.6	2.9	3.1	3.0	2.8	2.6	2.4	2.2	2.0	1.8	1.6	0.0	25.4	25.2
	30	0.0	0.2	0.5	0.9	1.4	1.8	2.2	2.6	2.9	3.1	3.0	2.8	2.6	2.4	2.2	2.0	1.8	1.6	0.0	20.6	20.4
	40	0.0	0.1	0.4	0.7	1.1	1.5	1.9	2.3	2.6	2.8	2.7	2.5	2.3	2.1	1.9	1.7	1.5	1.3	0.0	15.1	14.9
	50	0.0	0.1	0.3	0.6	1.0	1.3	1.7	2.1	2.4	2.5	2.4	2.1	2.0	1.8	1.6	1.4	1.2	1.0	0.0	9.6	9.4
	60	0.0	0.1	0.2	0.5	0.8	1.0	1.3	1.6	1.8	1.9	1.8	1.6	1.5	1.3	1.2	1.0	0.9	0.7	0.0	4.9	4.6
	70	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.0	1.1	1.1	1.0	0.9	0.9	0.7	0.6	0.5	0.4	0.3	0.0	1.6	1.4
	80	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.4	0.3	0.2	0.1	0.0	0.0	0.2	0.0
	90	0.0	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	0.0	0.0	276	272

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

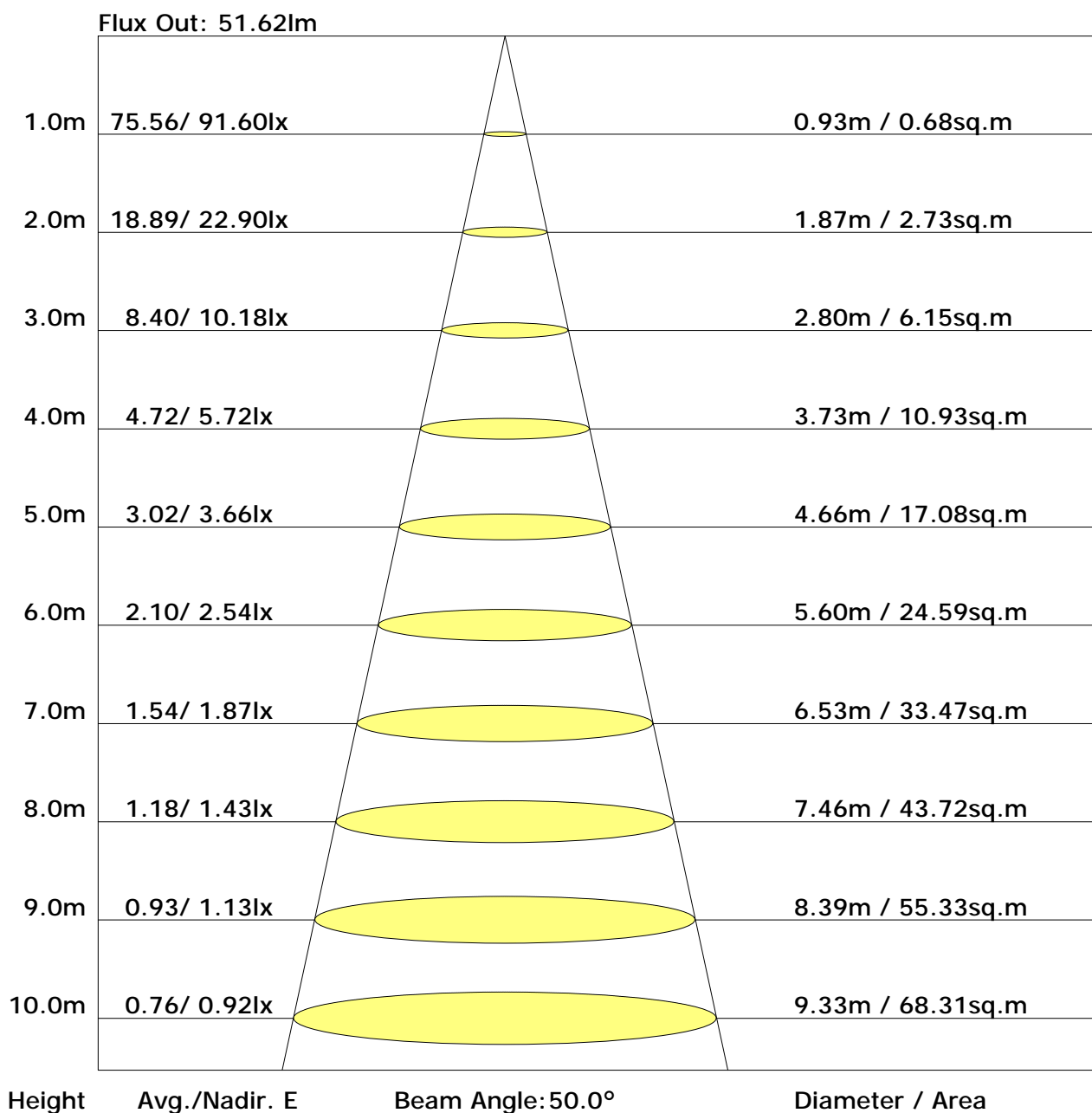
Test Device: GPM-1800B

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	29.0	30.6	29.3	30.9	31.3	28.7	30.3	29.1	30.7	31.0
3H	30.8	32.3	31.2	32.6	33.0	30.4	31.9	30.8	32.2	32.6
4H	31.5	32.9	31.9	33.2	33.6	31.0	32.4	31.4	32.7	33.1
6H	31.9	33.2	32.3	33.6	34.0	31.3	32.6	31.7	33.0	33.4
8H	32.0	33.3	32.5	33.7	34.1	31.3	32.6	31.8	33.0	33.4
12H	32.1	33.3	32.6	33.7	34.1	31.3	32.5	31.8	32.9	33.4
X=4H Y=2H	29.5	30.9	30.0	31.3	31.7	29.3	30.7	29.7	31.1	31.5
3H	31.6	32.8	32.0	33.2	33.6	31.2	32.4	31.7	32.8	33.2
4H	32.3	33.4	32.8	33.8	34.3	31.9	33.0	32.4	33.4	33.9
6H	32.9	33.8	33.4	34.3	34.8	32.4	33.3	32.8	33.7	34.2
8H	33.1	33.9	33.5	34.4	34.9	32.4	33.3	32.9	33.8	34.2
12H	33.2	34.0	33.7	34.4	34.9	32.4	33.2	32.9	33.7	34.2
X=8H Y=4H	32.6	33.5	33.1	33.9	34.4	32.2	33.1	32.7	33.6	34.0
6H	33.2	33.9	33.7	34.4	34.9	32.7	33.5	33.3	34.0	34.5
8H	33.4	34.1	34.0	34.6	35.1	32.9	33.5	33.4	34.0	34.5
12H	33.6	34.2	34.1	34.7	35.2	32.9	33.5	33.4	34.0	34.6
X=12H Y=4H	32.6	33.4	33.1	33.9	34.4	32.3	33.1	32.8	33.5	34.0
6H	33.3	33.9	33.8	34.4	34.9	32.8	33.5	33.3	33.9	34.5
8H	33.5	34.1	34.0	34.6	35.2	33.0	33.5	33.5	34.0	34.6

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	0.88	0.92	0.96	1.00	1.03
	0.30		0.51	0.60	0.68	0.73	0.81	0.87	0.91	0.96	1.00
	0.20		0.46	0.54	0.62	0.68	0.76	0.82	0.87	0.93	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	0.72	0.79	0.84	0.88	0.93	0.96
	0.20		0.45	0.53	0.61	0.67	0.75	0.80	0.84	0.90	0.94
0.30	0.50	0.20	0.56	0.63	0.70	0.75	0.81	0.86	0.89	0.93	0.95
	0.30		0.50	0.57	0.65	0.70	0.77	0.82	0.85	0.90	0.93
	0.20		0.45	0.53	0.60	0.66	0.73	0.78	0.82	0.87	0.91
0.00	0.00	0.00	0.43	0.50	0.57	0.63	0.70	0.75	0.78	0.83	0.86
Rating: 2W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											

## 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	0.96	0.82	0.69	0.60	0.48	0.40	0.34	0.26	0.21	
	0.30		0.80	0.70	0.60	0.53	0.43	0.37	0.32	0.25	0.20	
	0.20		0.69	0.61	0.53	0.48	0.40	0.34	0.29	0.23	0.19	
0.50	0.50	0.20	0.93	0.78	0.66	0.57	0.46	0.41	0.32	0.25	0.20	
	0.30		0.78	0.68	0.58	0.52	0.42	0.35	0.30	0.24	0.19	
	0.20		0.68	0.60	0.52	0.47	0.39	0.33	0.28	0.23	0.19	
0.30	0.50	0.20	0.90	0.75	0.63	0.55	0.44	0.36	0.31	0.24	0.19	
	0.30		0.77	0.66	0.57	0.50	0.40	0.34	0.29	0.23	0.19	
	0.20		0.67	0.59	0.51	0.46	0.38	0.32	0.28	0.22	0.18	
0.00	0.00	0.00	0.57	0.49	0.42	0.37	0.30	0.25	0.21	0.17	0.14	
<p>Rating: 2W 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	0.10	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
Rating: 2W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											