

Report No.:

Test Time: 2018/10/11 10:33

Luminaire Property

Luminaire Manufacturer:

Luminaire Category: RIBBONLYTE

Luminous Length (mm): 500

Luminous Height (mm): 1

Current: 0.105 A

Power Factor: 1.000

Luminaire Description: RBS220241.5R

Luminous Width (mm): 8

Voltage: 24.0 V

Power: 2.53 W

Photometric Results

CIE Class: Direct

Measurement Flux: 103.2 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H124.6

Vertical Diffuse Angle(50%): V123

Luminaire Efficacy Rating (LER): 41

Max. Intensity: 31.78 cd

Total Rated Lamp Lumens: 103.2 lm

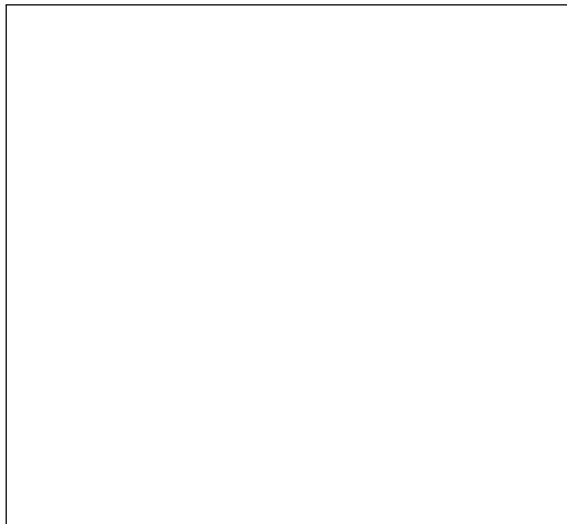
Efficiency: 100%

Upward Ratio: 1%

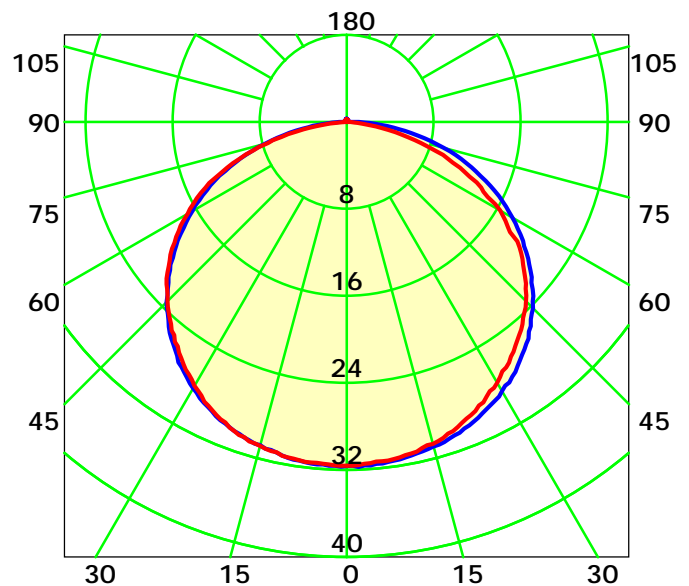
Central Intensity: 31.66 cd

Pos of Max. Intensity: H0 V2

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 123.8° 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

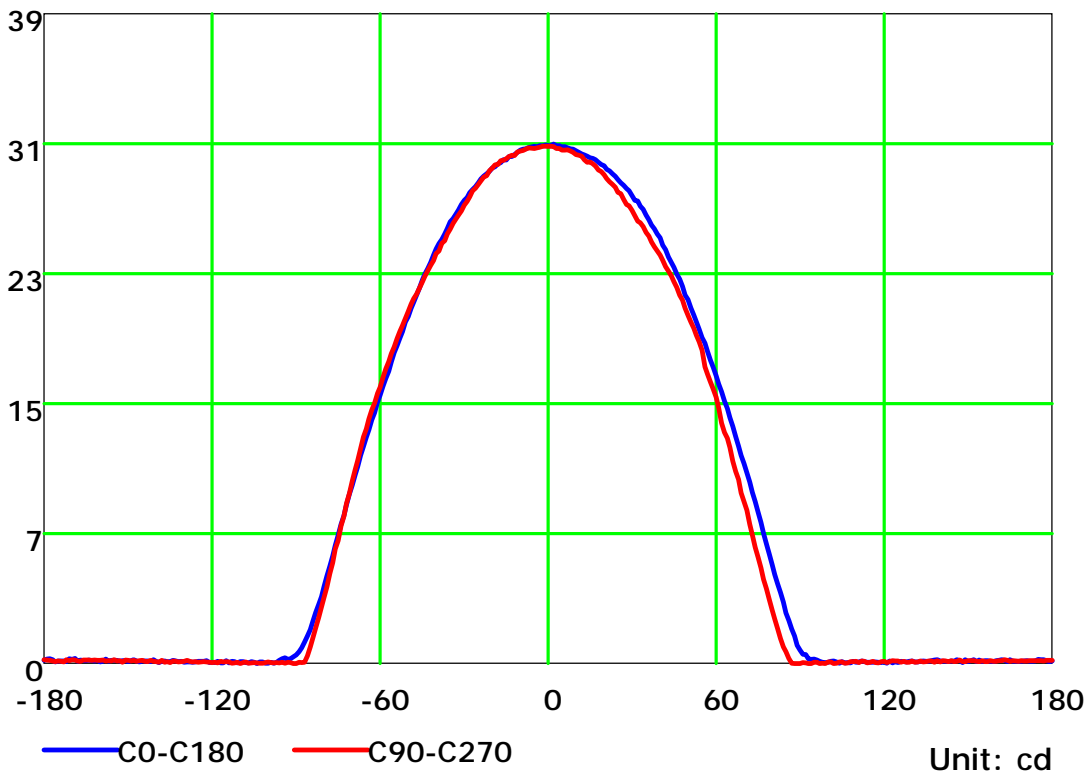
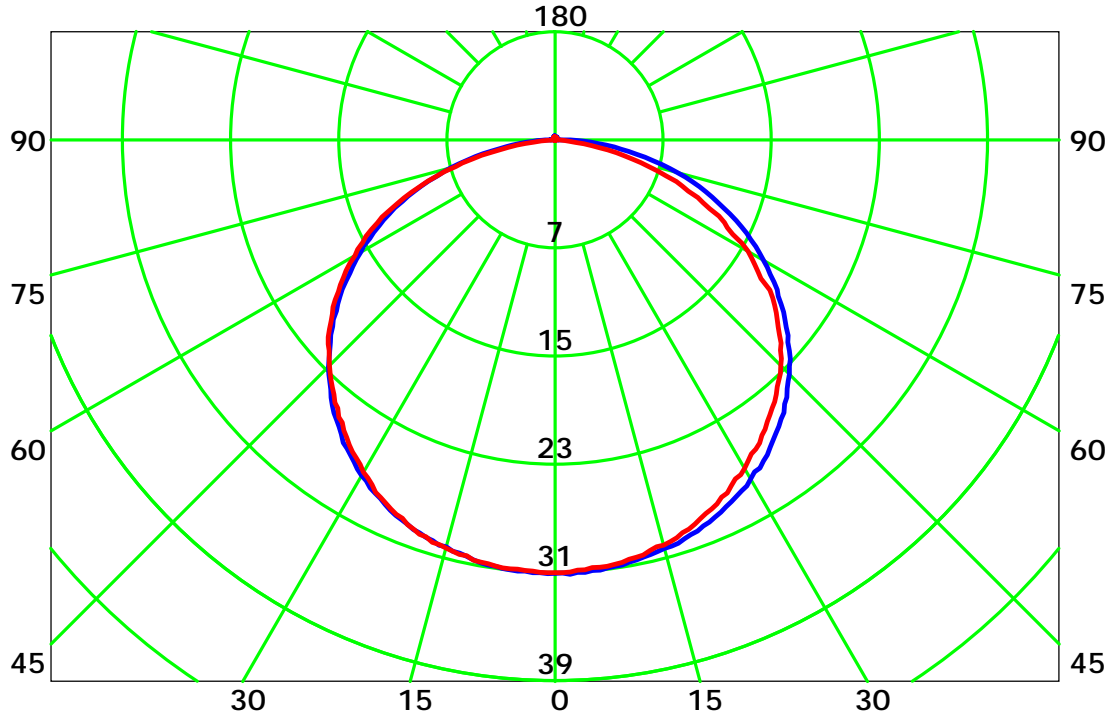
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

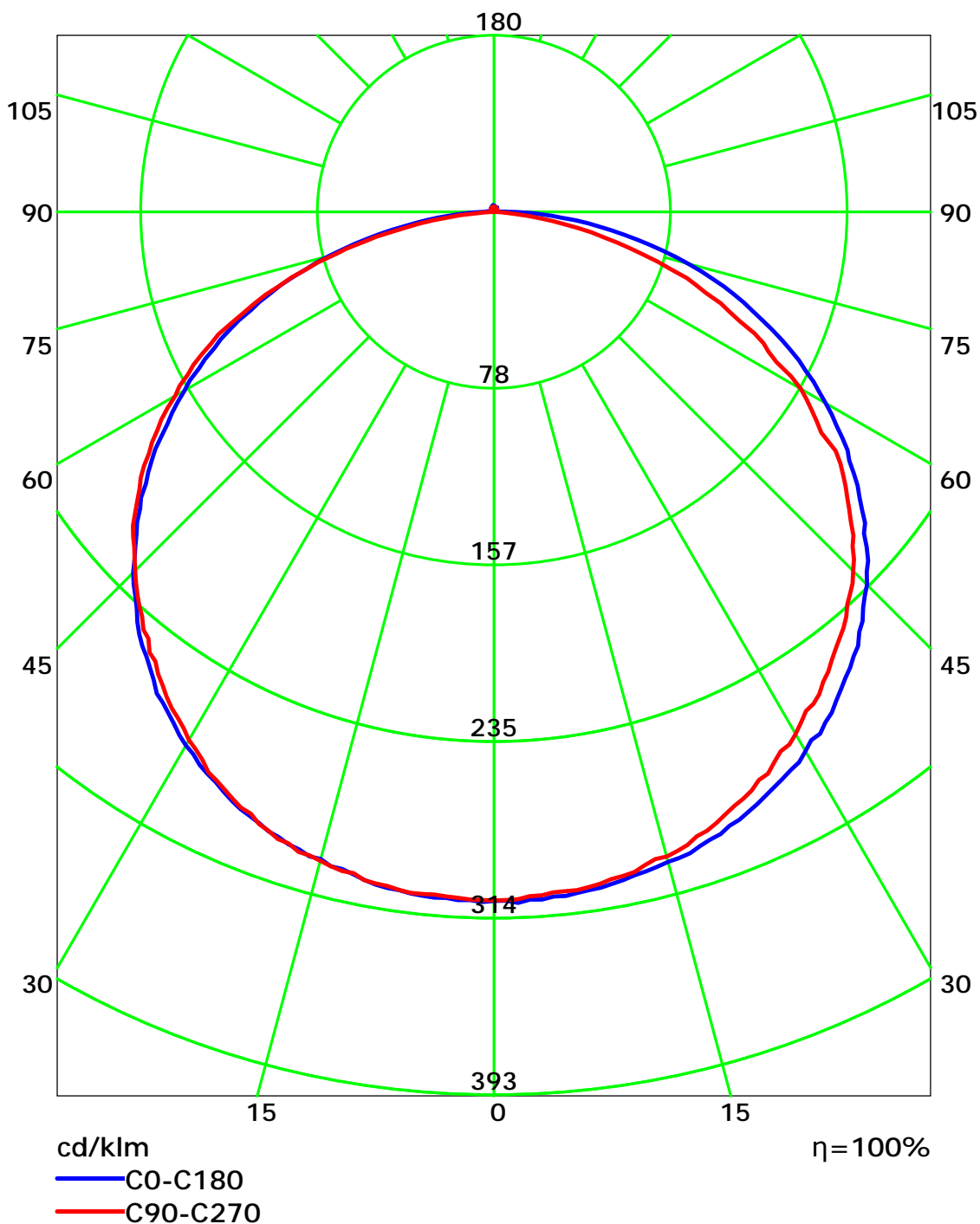
Luminous Intensity Distribution Curve



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:

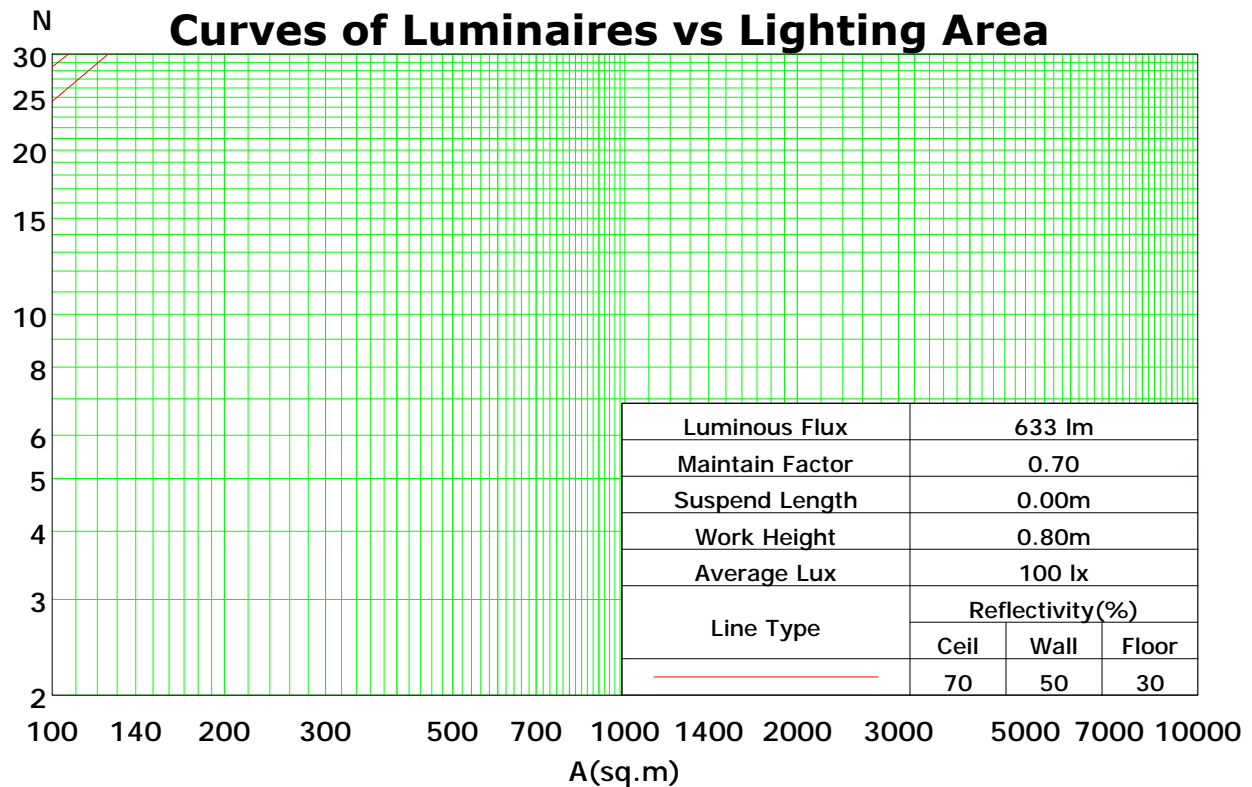
Coefficients Of Utilization - Zonal Cavity Method

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	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	76	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	59	54	49	47
5	74	61	51	45	72	60	51	44	57	50	44	55	48	43	53	47	43	40
6	68	54	45	39	66	53	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	30	24	36	29	24	35	29	24	34	28	24	22

Spacing Criteria (0-180): 1.34

Spacing Criteria (90-270): 1.31

Spacing Criteria (Diagonal): 1.45



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

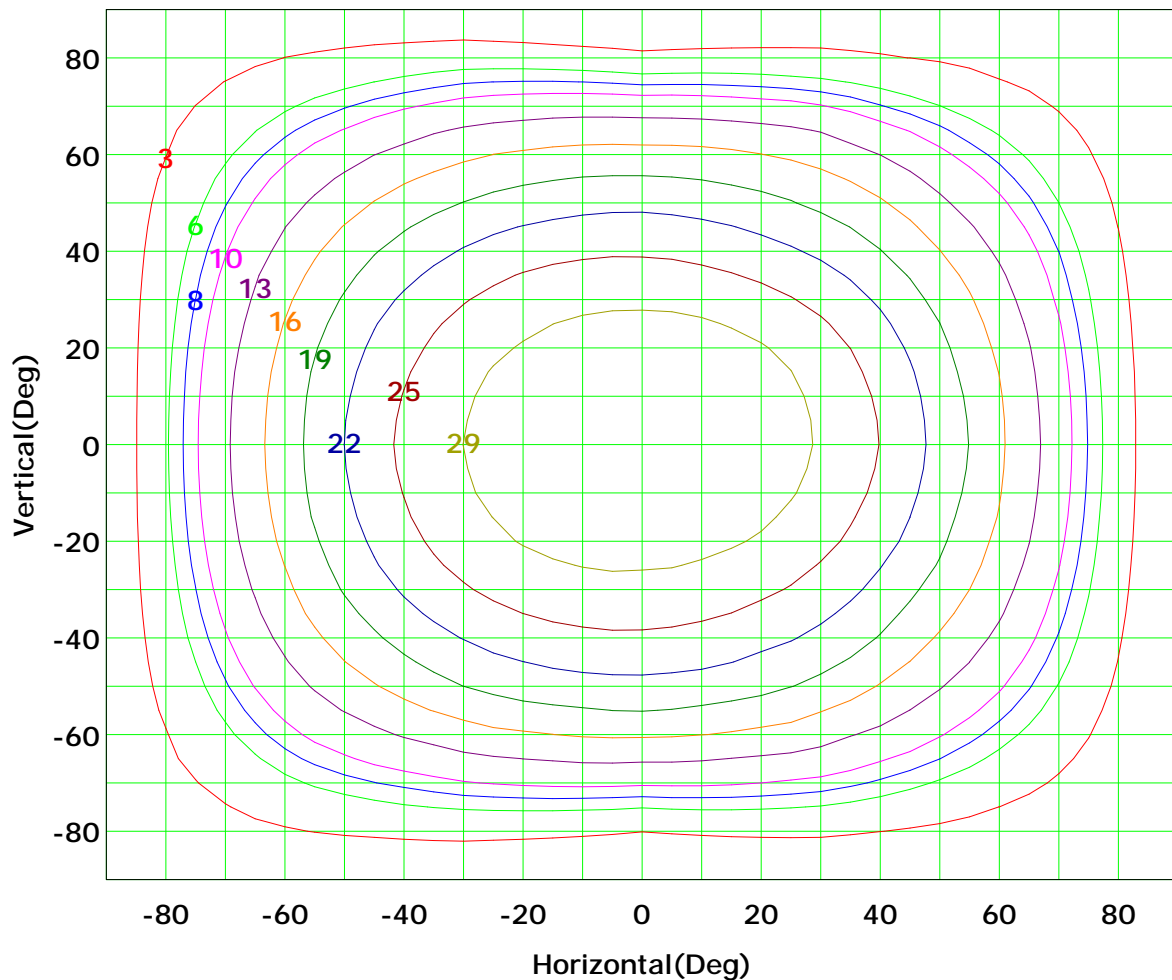
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Isocandela (rectangle)



Imax (100%): 32 cd

(10%):	3 cd	(20%):	6 cd
(25%):	8 cd	(30%):	10 cd
(40%):	13 cd	(50%):	16 cd
(60%):	19 cd	(70%):	22 cd
(80%):	25 cd	(90%):	29 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

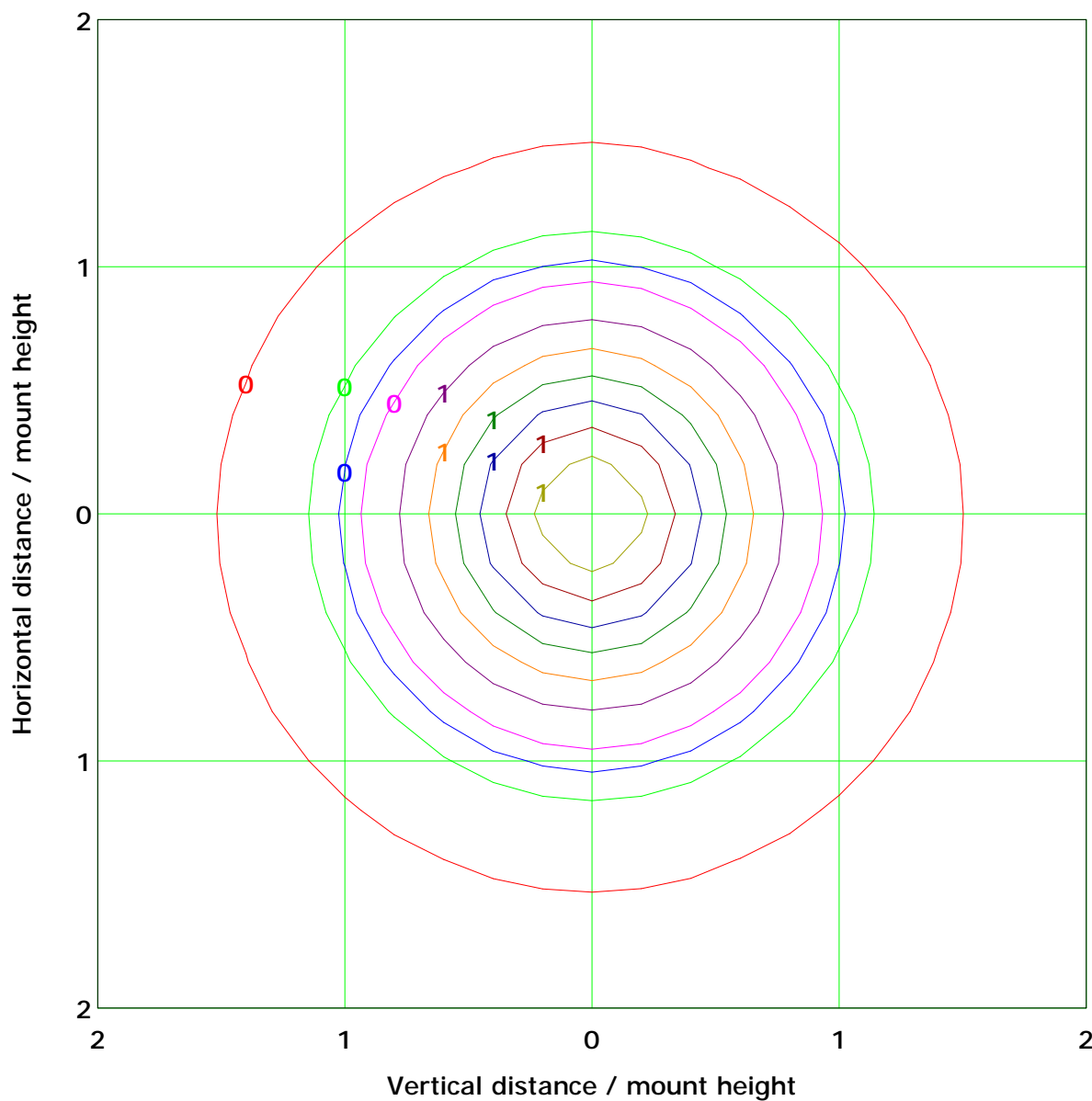
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 1.3 lx

(10%): 0.1 lx
(25%): 0.3 lx
(40%): 0.5 lx
(60%): 0.8 lx
(80%): 1.0 lx

(20%): 0.3 lx
(30%): 0.4 lx
(50%): 0.6 lx
(70%): 0.9 lx
(90%): 1.1 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

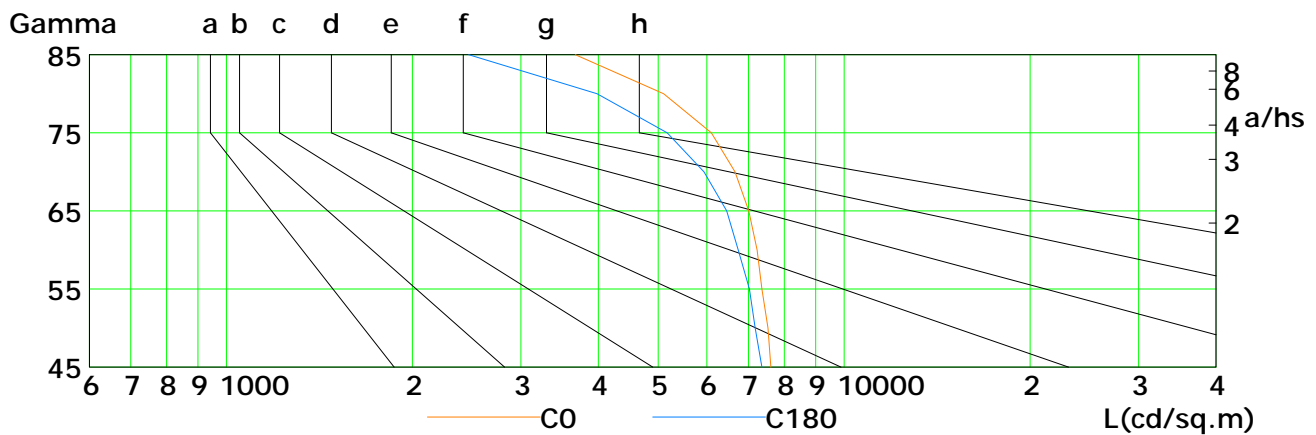
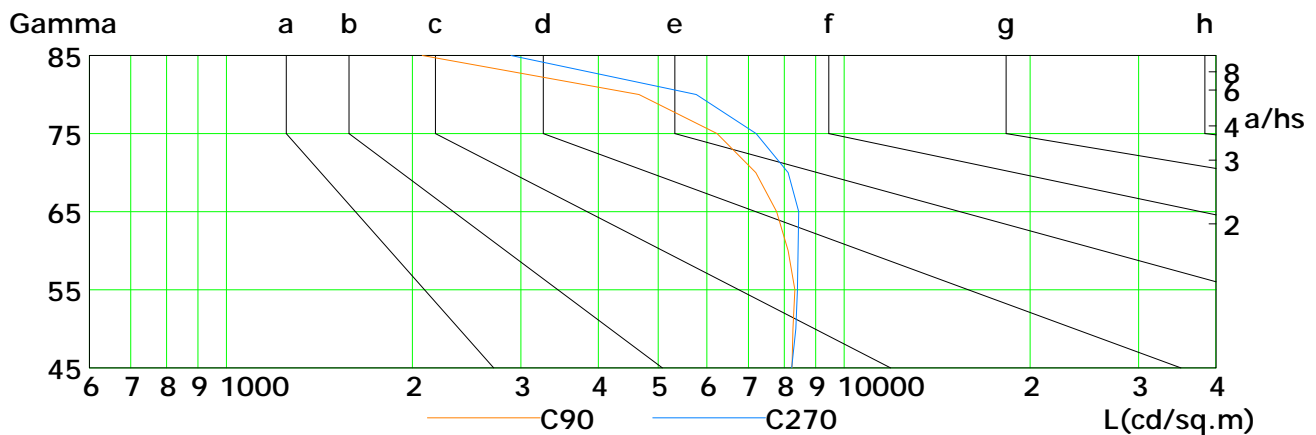
Humidity: 60%

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	7615	7532	7367	7234	7011	6660	6099	5105	3673
C90	8235	8265	8327	8117	7781	7197	6232	4655	2075
C180	7366	7183	7027	6741	6461	5931	5170	3985	2468
C270	8228	8354	8410	8421	8447	8120	7210	5765	2888

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

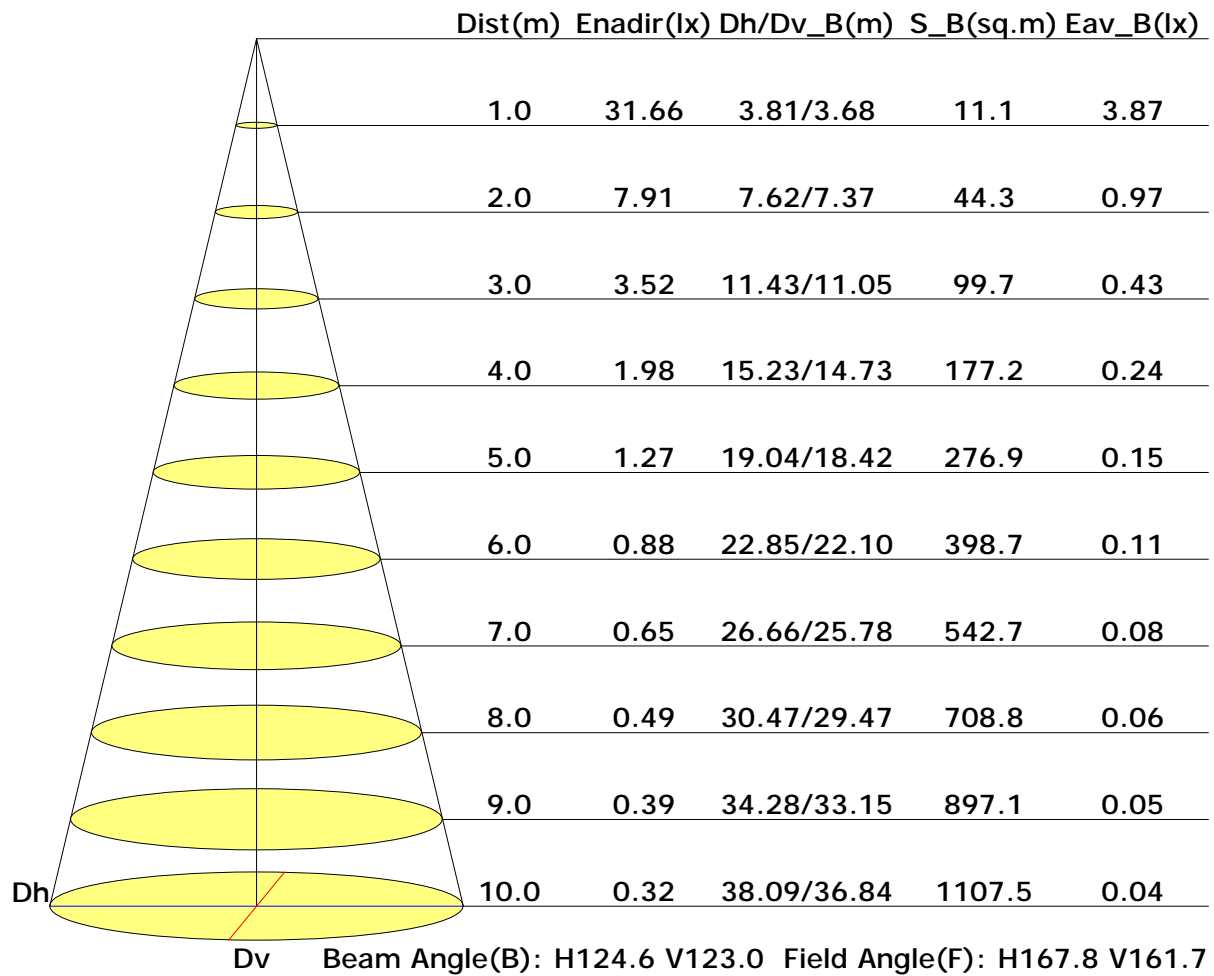
Test Device: GPM-1800B

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

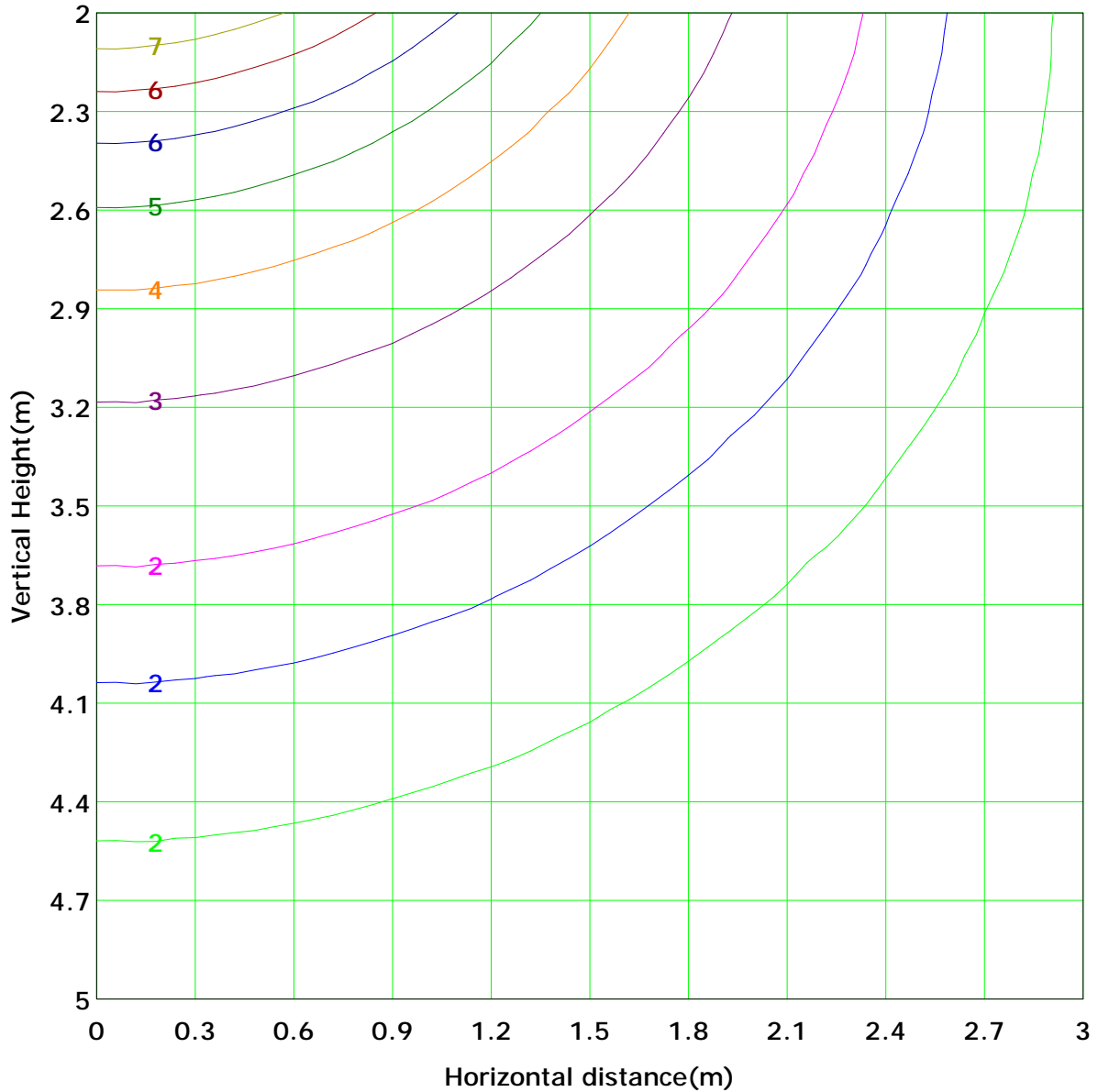
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 7.9 lx
(10%): 0.8 lx	(20%): 1.6 lx	
(25%): 2.0 lx	(30%): 2.4 lx	
(40%): 3.2 lx	(50%): 4.0 lx	
(60%): 4.8 lx	(70%): 5.5 lx	
(80%): 6.3 lx	(90%): 7.1 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:

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	0.0
	-80	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.7	0.6
	-70	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	1.9	1.9
	-60	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	0.2	0.1	0.0	0.0	0.0	0.0	3.6	3.6
	-50	0.0	0.1	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.2	0.1	0.0	0.0	0.0	5.6	5.5
	-40	0.0	0.1	0.2	0.3	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.3	0.2	0.1	0.0	0.0	7.6	7.5
	-30	0.0	0.1	0.2	0.3	0.5	0.7	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.5	0.4	0.3	0.2	0.1	9.2	9.2
	-20	0.0	0.1	0.2	0.3	0.5	0.8	0.8	0.9	0.9	0.8	0.8	0.8	0.8	0.7	0.6	0.5	0.4	0.3	0.2	10.4	10.3
	-10	0.0	0.1	0.2	0.3	0.5	0.9	0.9	1.0	1.0	0.9	0.9	0.9	0.9	0.8	0.7	0.6	0.5	0.4	0.3	11.0	10.9
	0	0.0	0.1	0.2	0.3	0.5	0.9	0.9	1.0	1.0	0.9	0.9	0.9	0.9	0.8	0.7	0.6	0.5	0.4	0.3	11.0	11.0
	10	0.0	0.1	0.2	0.3	0.5	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.2	10.5	10.5
	20	0.0	0.1	0.2	0.3	0.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.6	0.5	0.4	0.3	0.2	0.1	9.5	9.4
	30	0.0	0.1	0.2	0.3	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	7.9	7.8
	40	0.0	0.1	0.2	0.3	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	6.0	5.9
	50	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	0.2	0.1	0.0	0.0	0.0	4.0	4.0
	60	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	0.2	0.1	0.0	0.0	0.0	2.2	2.2
	70	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	0.2	0.1	0.0	0.0	0.0	0.9	0.8
	80	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	0.2	0.1	0.0	0.0	0.0	0.1	0.1
	90	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	0.2	0.1	0.0	0.0	0.0	102	101
	Flux(E)	0.0	0.6	1.9	3.6	5.5	7.5	9.2	10.3	10.9	11.0	10.5	9.4	7.8	5.9	4.0	2.2	0.8	0.1			

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

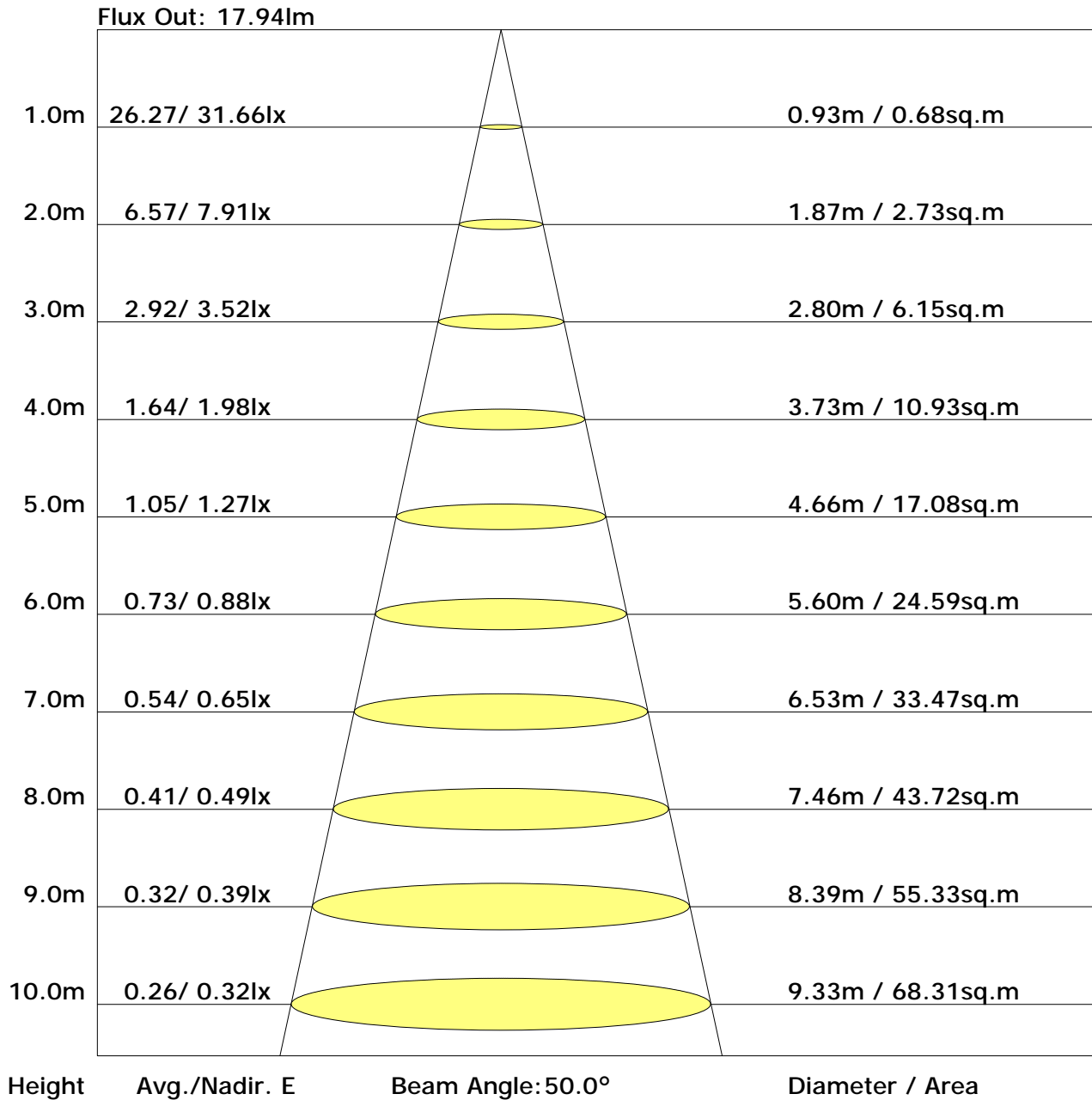
Test Device: GPM-1800B

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	27.6	29.3	28.0	29.6	29.9	26.9	28.6	27.3	28.9	29.2
3H	29.7	31.3	30.1	31.6	32.0	28.6	30.1	29.0	30.4	30.8
4H	30.6	32.1	31.1	32.4	32.8	29.1	30.5	29.5	30.9	31.3
6H	31.4	32.7	31.8	33.1	33.5	29.4	30.7	29.8	31.1	31.5
8H	31.6	32.9	32.1	33.3	33.7	29.4	30.7	29.9	31.1	31.5
12H	31.8	33.1	32.3	33.5	33.9	29.4	30.7	29.9	31.1	31.5
X=4H Y=2H	28.2	29.7	28.6	30.0	30.4	27.6	29.0	28.0	29.4	29.8
3H	30.6	31.8	31.0	32.2	32.6	29.5	30.7	29.9	31.1	31.5
4H	31.6	32.7	32.1	33.2	33.6	30.2	31.3	30.6	31.7	32.1
6H	32.5	33.4	32.9	33.9	34.4	30.6	31.5	31.0	32.0	32.5
8H	32.8	33.7	33.3	34.2	34.6	30.7	31.6	31.1	32.0	32.5
12H	33.1	33.9	33.6	34.4	34.9	30.7	31.5	31.2	32.0	32.5
X=8H Y=4H	31.9	32.8	32.4	33.3	33.8	30.6	31.5	31.0	31.9	32.4
6H	32.9	33.7	33.4	34.2	34.7	31.1	31.8	31.6	32.3	32.8
8H	33.3	34.0	33.8	34.5	35.0	31.2	31.9	31.7	32.4	32.9
12H	33.7	34.3	34.2	34.8	35.4	31.3	31.9	31.8	32.4	33.0
X=12H Y=4H	32.0	32.8	32.4	33.3	33.7	30.6	31.4	31.1	31.9	32.4
6H	33.0	33.6	33.5	34.1	34.7	31.2	31.9	31.7	32.3	32.9
8H	33.4	34.0	33.9	34.5	35.1	31.4	32.0	31.9	32.5	33.0

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	0.57	0.66	0.73	0.79	0.86	0.91	0.95	0.99	1.03
	0.30		0.49	0.58	0.66	0.71	0.80	0.85	0.89	0.95	0.99
	0.20		0.44	0.52	0.60	0.66	0.74	0.80	0.85	0.91	0.95
0.50	0.50	0.20	0.55	0.63	0.71	0.76	0.83	0.87	0.91	0.95	0.98
	0.30		0.48	0.56	0.64	0.70	0.77	0.83	0.86	0.92	0.95
	0.20		0.43	0.51	0.59	0.65	0.73	0.78	0.83	0.88	0.92
0.30	0.50	0.20	0.54	0.61	0.68	0.73	0.80	0.84	0.87	0.91	0.94
	0.30		0.48	0.55	0.63	0.68	0.75	0.80	0.84	0.88	0.92
	0.20		0.43	0.50	0.58	0.63	0.71	0.77	0.80	0.86	0.89
0.00	0.00	0.00	0.41	0.48	0.55	0.60	0.68	0.73	0.76	0.81	0.84
Rating: 3W 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	0.99	0.84	0.72	0.63	0.50	0.42	0.36	0.28	0.23	
	0.30		0.82	0.72	0.62	0.55	0.45	0.38	0.33	0.26	0.22	
	0.20		0.71	0.63	0.55	0.50	0.41	0.35	0.31	0.25	0.21	
0.50	0.50	0.20	0.95	0.81	0.69	0.60	0.48	0.43	0.34	0.27	0.22	
	0.30		0.81	0.70	0.61	0.54	0.44	0.37	0.32	0.25	0.21	
	0.20		0.70	0.62	0.54	0.49	0.40	0.34	0.30	0.24	0.20	
0.30	0.50	0.20	0.92	0.78	0.66	0.57	0.46	0.38	0.33	0.25	0.21	
	0.30		0.79	0.69	0.59	0.52	0.42	0.36	0.31	0.24	0.20	
	0.20		0.69	0.61	0.53	0.48	0.39	0.33	0.29	0.23	0.19	
0.00	0.00	0.00	0.59	0.52	0.44	0.39	0.32	0.27	0.23	0.18	0.15	
Rating: 3W 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(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	0.19	0.20	0.21	0.21	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	0.16	0.18	0.19	0.19	0.20	0.21	0.21	0.21	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	0.10	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	0.20	0.20	0.20	0.21
	0.30		0.10	0.11	0.13	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: 3W 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: