

Report No.:

Test Time: 2018/10/30 15:38

Luminaire Property

Luminaire Manufacturer:

Luminaire Category: MINI WALL WAHSER

Luminaire Description: MINIRGBW2424RGB6525TS (W)

Luminous Length (mm): 500

Luminous Width (mm): 50

Luminous Height (mm): 70

Voltage: 24.0 V

Current: 0.267 A

Power: 6.41 W

Power Factor: 1.000

Photometric Results

CIE Class: Direct

Measurement Flux: 445.9 lm

Downward Ratio: 98%

Horizontal Diffuse Angle(50%): H21.8

Vertical Diffuse Angle(50%): V21.8

Luminaire Efficacy Rating (LER): 70

Max. Intensity: 1353.78 cd

Total Rated Lamp Lumens: 445.9 lm

Efficiency: 100%

Upward Ratio: 2%

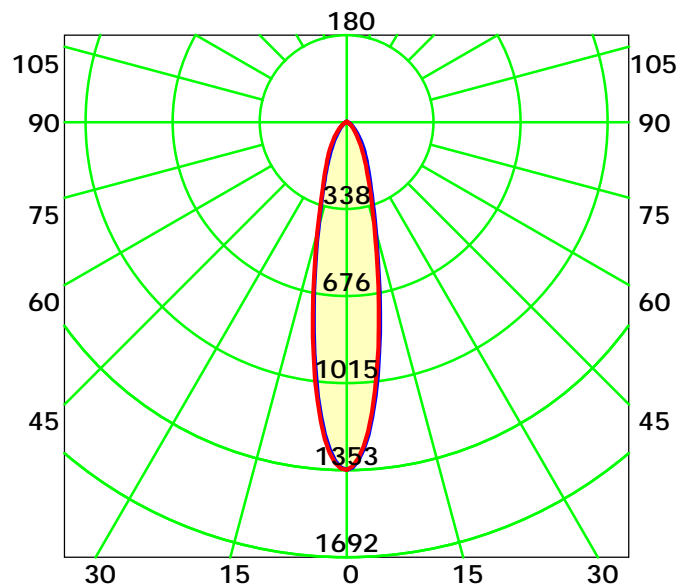
Central Intensity: 1352.48 cd

Pos of Max. Intensity: H30 V0

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 21.8° 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

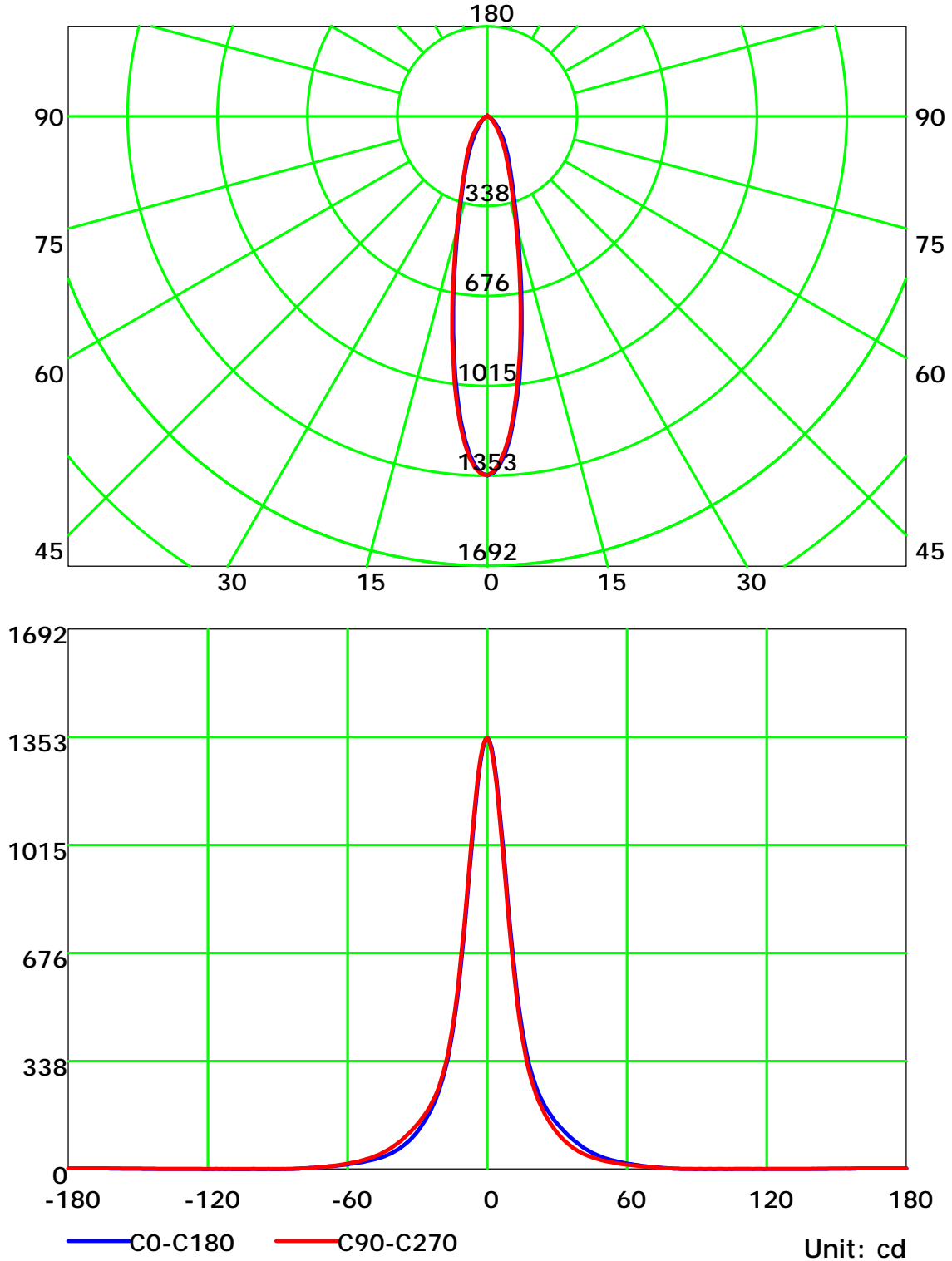
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

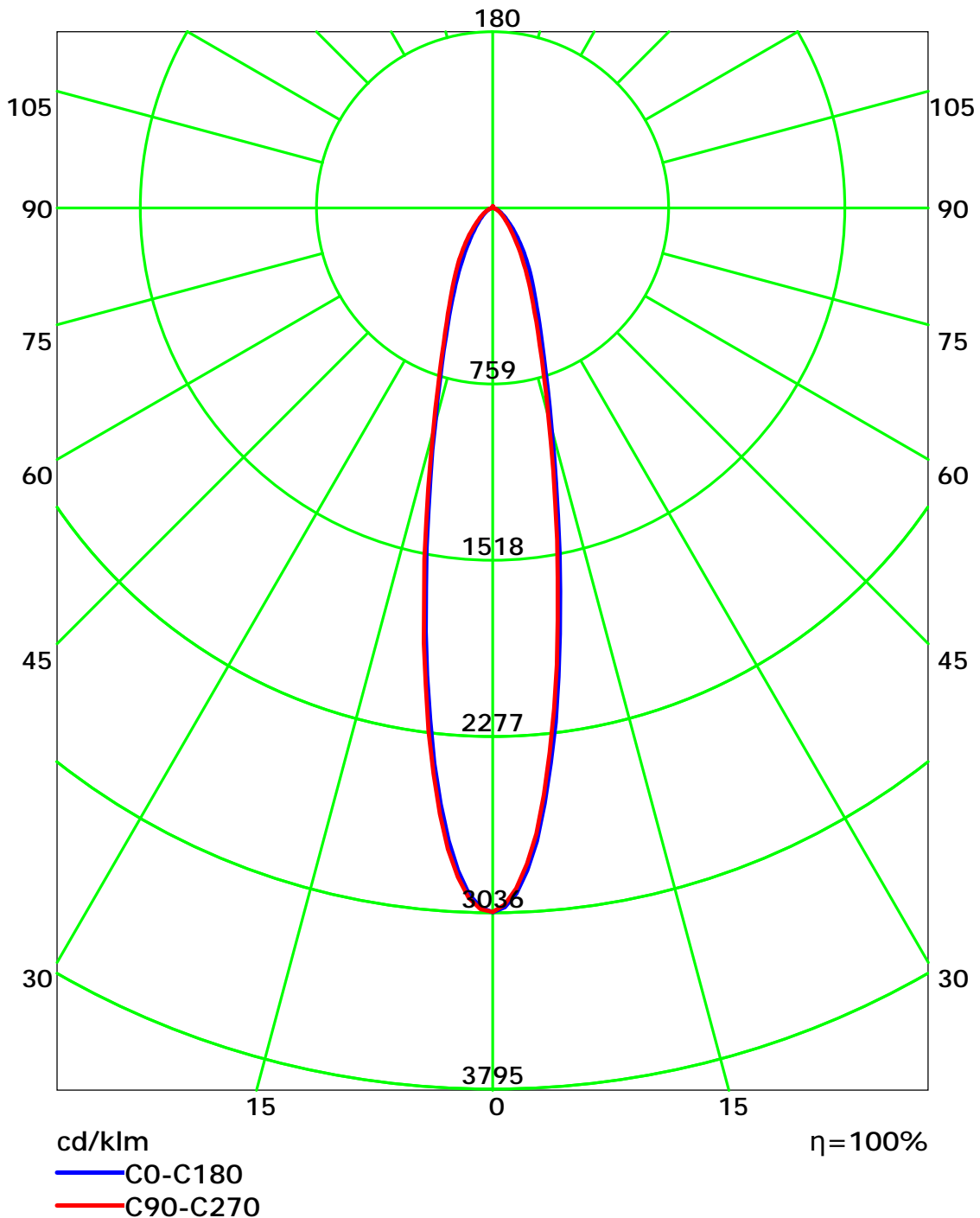
Luminous Intensity Distribution Curve



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:

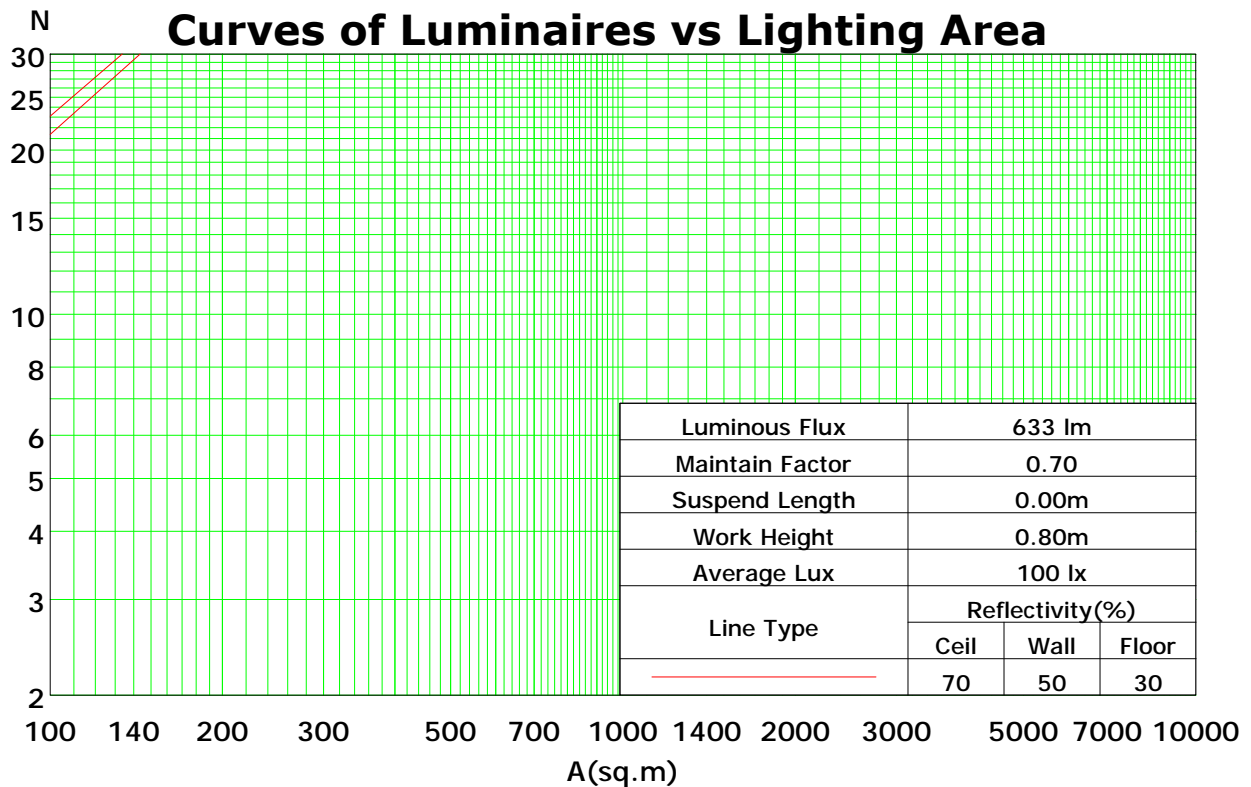
Coefficients Of Utilization - Zonal Cavity Method

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	110	110	110	105	105	105	100	100	100	98
1	113	110	107	105	110	107	105	103	103	101	99	99	97	96	95	94	93	91
2	107	102	98	94	104	100	96	93	96	93	91	93	91	88	90	88	86	84
3	101	95	90	86	99	93	89	85	90	86	83	88	84	82	85	83	80	79
4	96	89	83	79	95	88	82	78	85	81	77	83	79	76	81	78	75	73
5	92	84	78	73	90	82	77	73	80	76	72	79	75	71	77	73	71	69
6	88	79	73	69	86	78	72	68	76	71	68	75	70	67	73	70	67	65
7	84	75	69	65	82	74	69	65	73	68	64	71	67	64	70	66	63	62
8	80	71	65	61	79	70	65	61	69	64	61	68	64	60	67	63	60	59
9	77	68	62	58	76	67	62	58	66	61	58	65	61	58	64	60	57	56
10	74	65	59	56	73	64	59	56	64	59	55	63	58	55	62	58	55	54

Spacing Criteria (0-180): 0.37

Spacing Criteria (90-270): 0.37

Spacing Criteria (Diagonal): 0.41



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

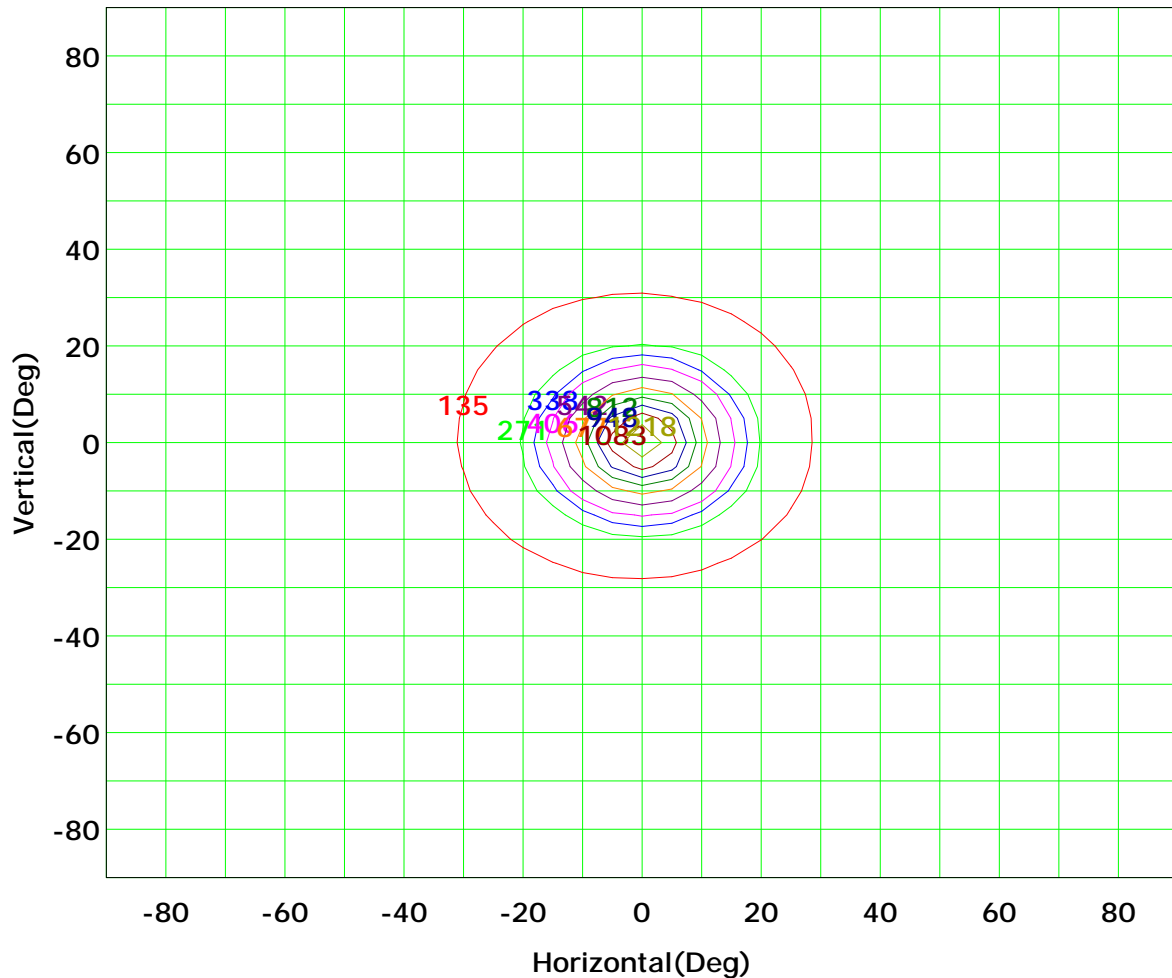
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Isocandela (rectangle)



Imax (100%): 1354 cd

(10%): 135 cd	(20%): 271 cd
(25%): 338 cd	(30%): 406 cd
(40%): 542 cd	(50%): 677 cd
(60%): 812 cd	(70%): 948 cd
(80%): 1083 cd	(90%): 1218 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

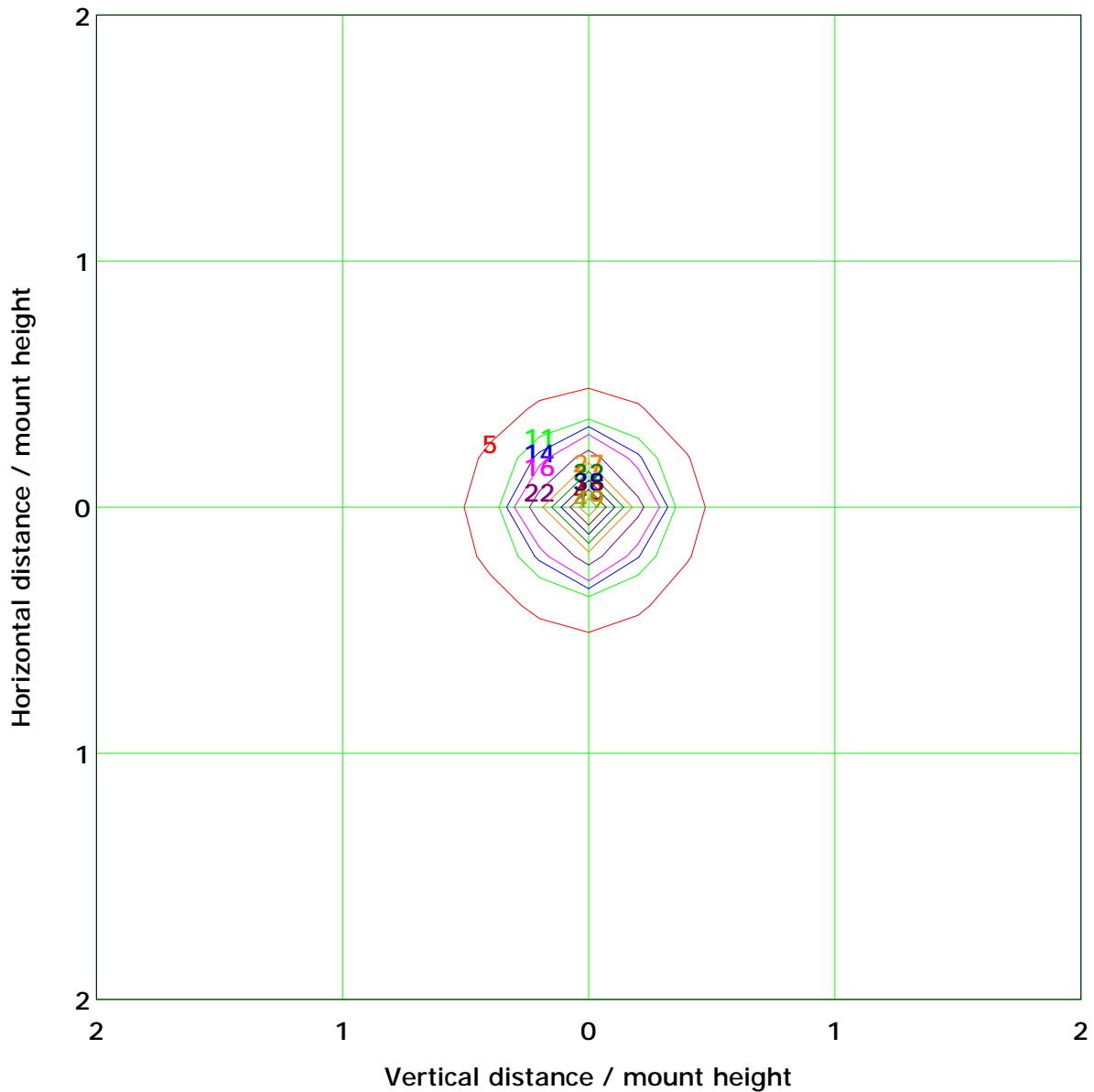
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 54.2 lx

(10%): 5.4 lx	(20%): 10.8 lx
(25%): 13.5 lx	(30%): 16.2 lx
(40%): 21.7 lx	(50%): 27.1 lx
(60%): 32.5 lx	(70%): 37.9 lx
(80%): 43.3 lx	(90%): 48.7 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

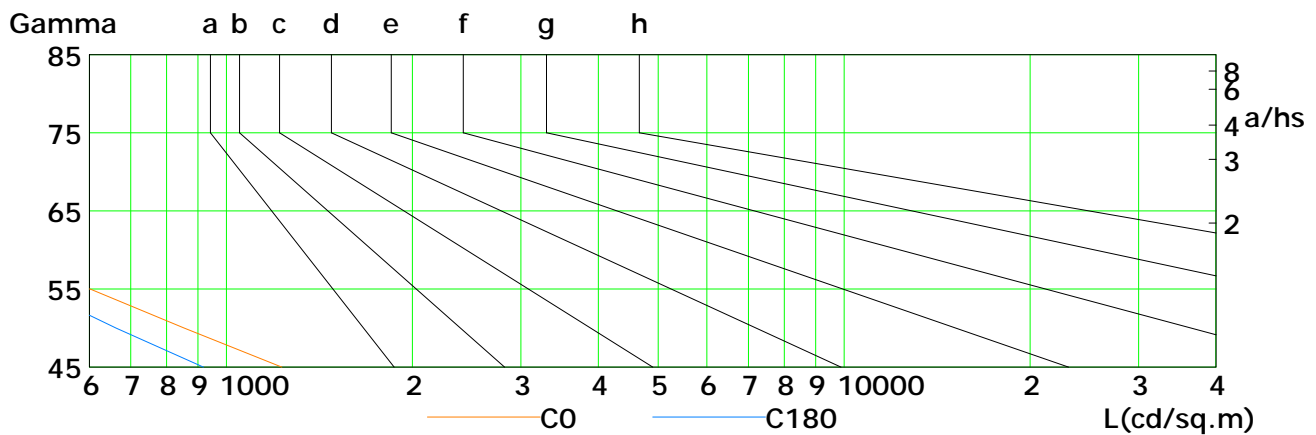
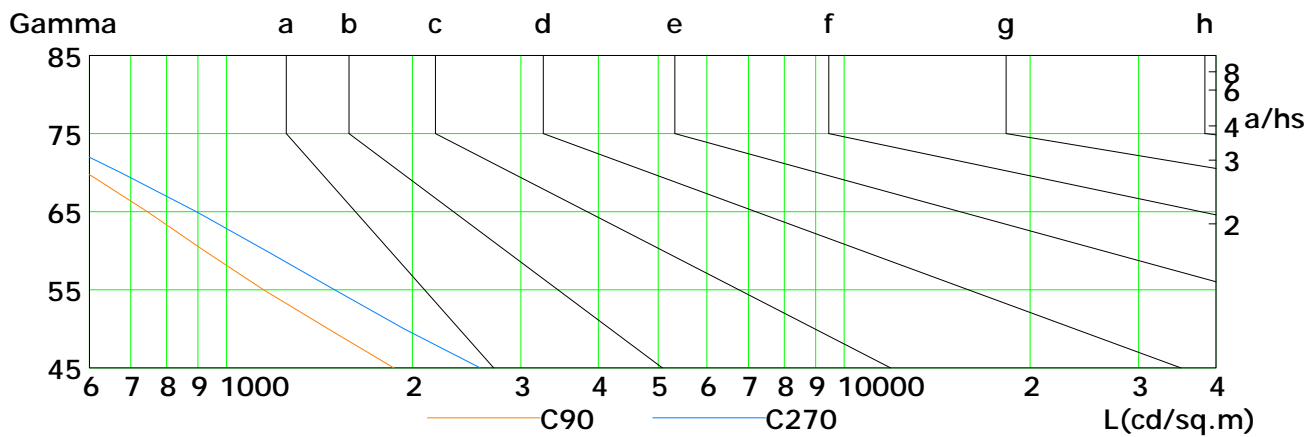
Humidity: 60%

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	1230	855	602	427	299	198	118	59	27
C90	1868	1462	1150	921	745	593	440	285	207
C180	918	663	490	366	268	188	123	67	32
C270	2575	1941	1498	1160	895	675	501	327	244

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

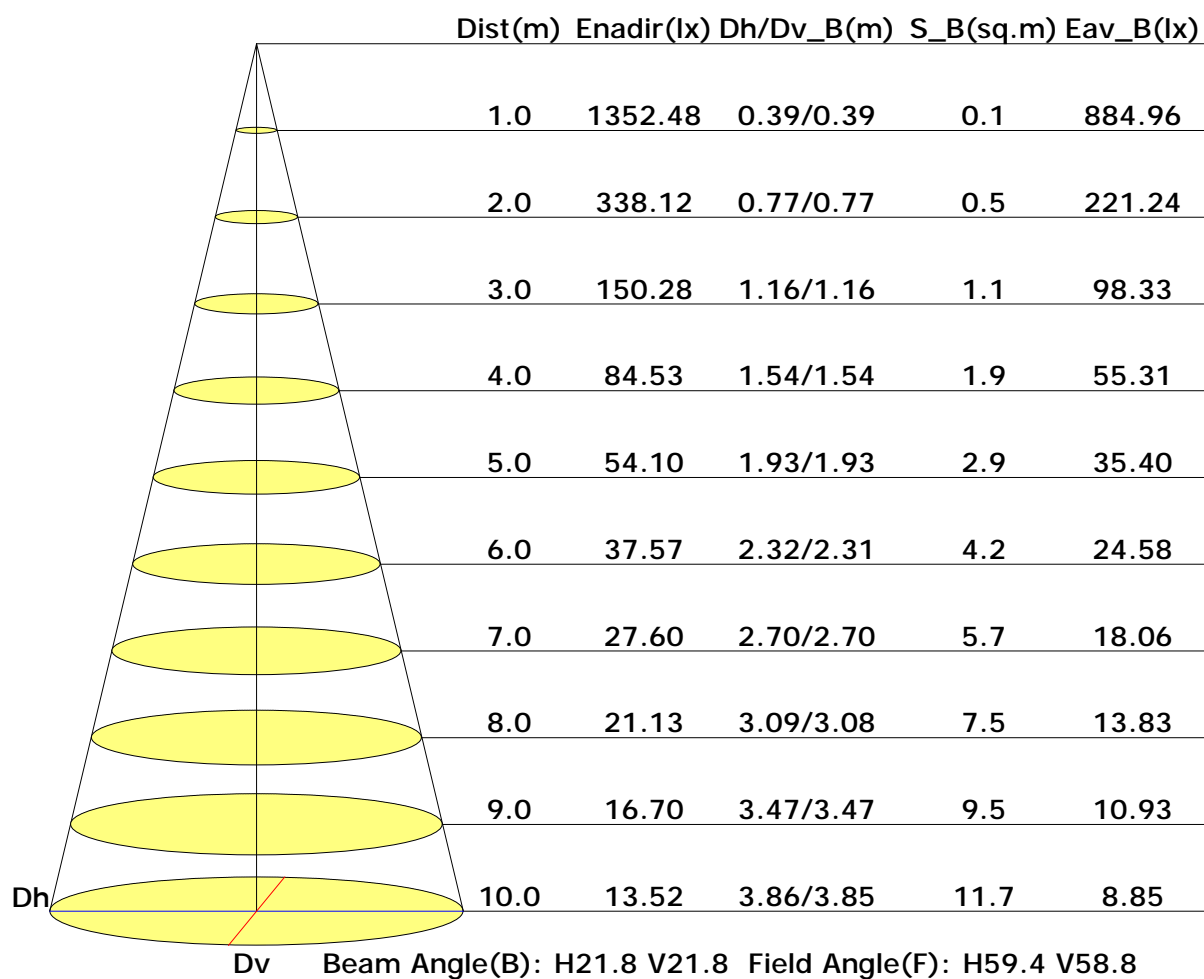
Test Device: GPM-1800B

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

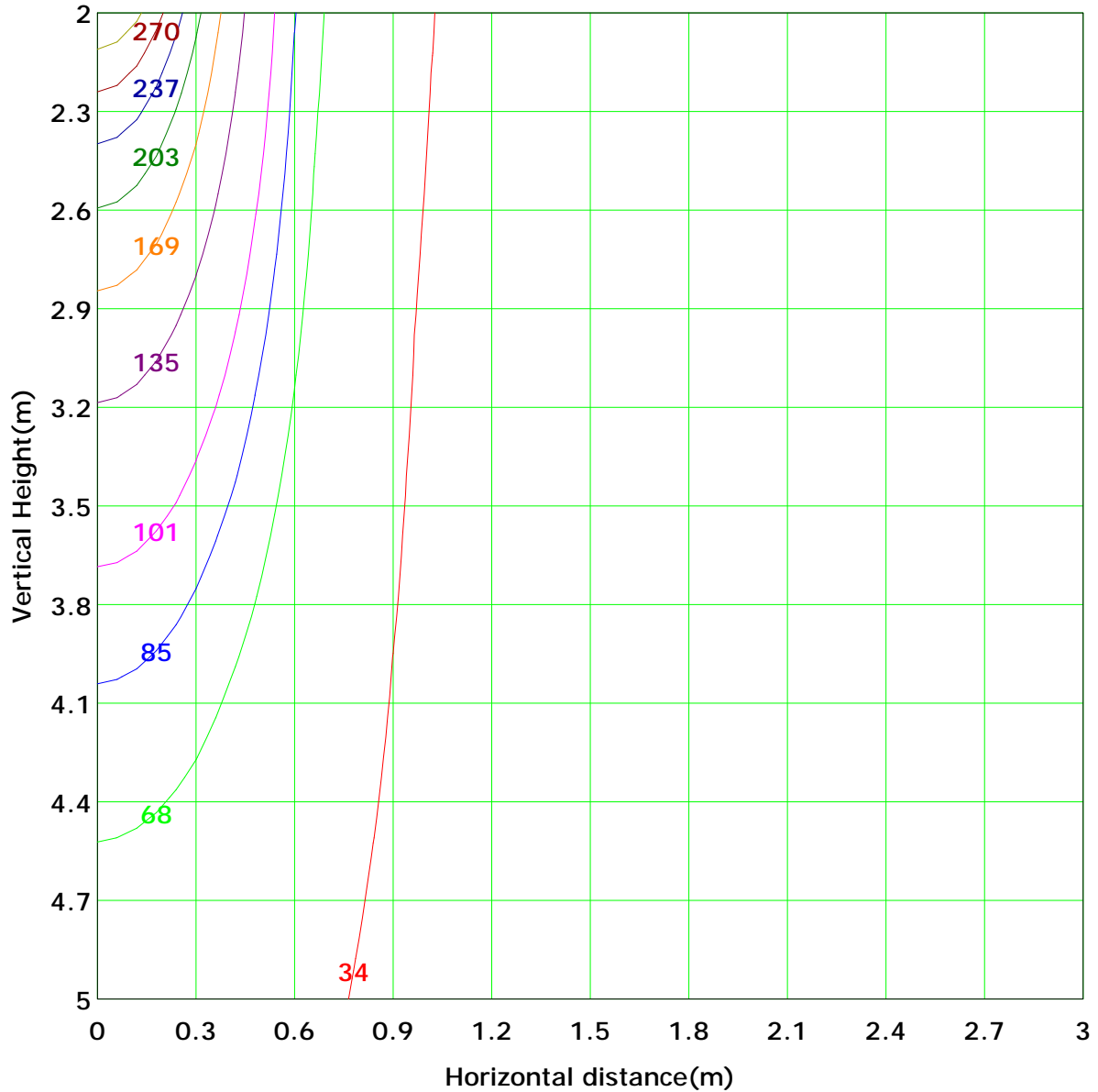
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 338.1 lx
(10%): 33.8 lx	(20%): 67.6 lx	
(25%): 84.5 lx	(30%): 101.4 lx	
(40%): 135.2 lx	(50%): 169.1 lx	
(60%): 202.9 lx	(70%): 236.7 lx	
(80%): 270.5 lx	(90%): 304.3 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	0.0
	-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	0.4	0.0
	-70	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	1.5	0.0
	-60	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	3.5	0.0
	-50	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	7.2	0.0
	-40	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	14.3	0.0
	-30	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	28.4	0.0
	-20	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	56.1	0.0
	-10	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	103.4	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	0.0	102.1	0.0
	10	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	57.1	0.0
	20	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	31.4	0.0
	30	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	17.2	0.0
	40	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	8.6	0.0
	50	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	3.9	0.0
	60	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	1.5	0.0
	70	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	0.4	0.0
	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	0.1	0.0
	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	437	0.0
	Flux(T)	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	437	0.0
	Flux(E)	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	301	0.0

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

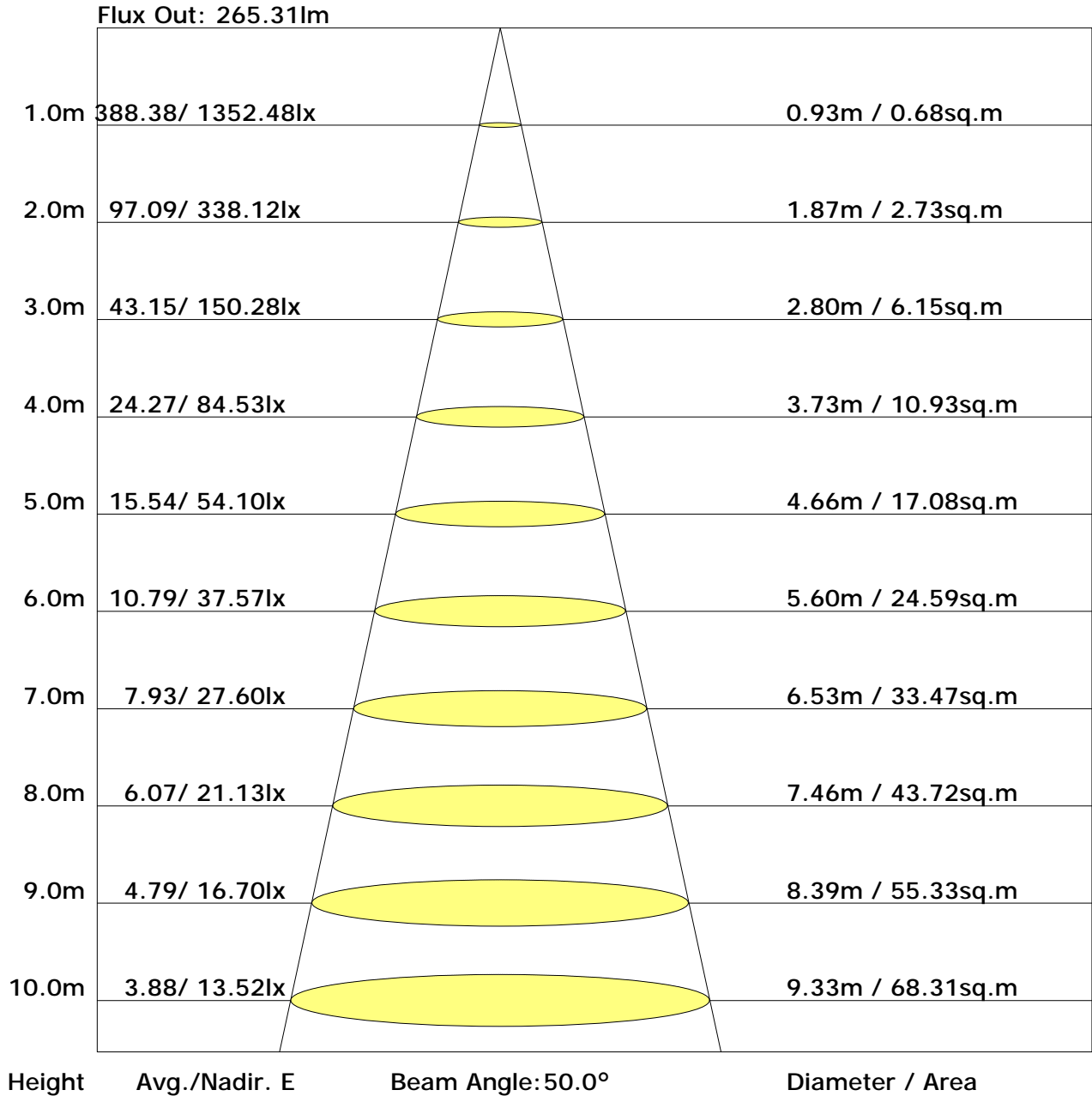
Test Device: GPM-1800B

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	10.5	11.6	10.9	11.9	12.3	7.3	8.4	7.7	8.7	9.1
3H	11.3	12.3	11.8	12.7	13.1	8.0	8.9	8.4	9.3	9.7
4H	11.5	12.4	12.0	12.8	13.3	8.1	9.0	8.5	9.4	9.8
6H	11.6	12.4	12.1	12.8	13.3	8.1	9.0	8.6	9.4	9.8
8H	11.6	12.4	12.1	12.8	13.3	8.1	8.9	8.6	9.3	9.8
12H	11.6	12.3	12.0	12.7	13.2	8.1	8.8	8.6	9.3	9.7
X=4H Y=2H	10.5	11.4	11.0	11.8	12.2	7.6	8.5	8.1	8.9	9.3
3H	11.5	12.2	11.9	12.6	13.1	8.4	9.2	8.9	9.6	10.1
4H	11.7	12.4	12.2	12.8	13.3	8.6	9.3	9.1	9.7	10.2
6H	11.8	12.4	12.3	12.9	13.4	8.7	9.3	9.2	9.7	10.3
8H	11.8	12.3	12.3	12.8	13.3	8.7	9.2	9.2	9.7	10.2
12H	11.8	12.2	12.3	12.8	13.3	8.7	9.1	9.2	9.6	10.2
X=8H Y=4H	11.6	12.1	12.1	12.6	13.2	8.7	9.2	9.2	9.7	10.2
6H	11.7	12.2	12.3	12.7	13.2	8.8	9.2	9.3	9.7	10.3
8H	11.8	12.1	12.3	12.7	13.2	8.8	9.2	9.3	9.7	10.3
12H	11.8	12.1	12.3	12.6	13.2	8.8	9.1	9.3	9.6	10.3
X=12H Y=4H	11.6	12.0	12.1	12.5	13.1	8.6	9.1	9.2	9.6	10.1
6H	11.7	12.1	12.3	12.6	13.2	8.8	9.1	9.3	9.6	10.2
8H	11.7	12.0	12.3	12.6	13.2	8.8	9.1	9.3	9.6	10.3

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 = 0.50								
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	0.80	0.87	0.92	0.96	1.01	1.04	1.06	1.09	1.11
	0.30		0.75	0.82	0.87	0.91	0.97	1.00	1.03	1.06	1.08
	0.20		0.71	0.78	0.84	0.88	0.93	0.97	1.00	1.04	1.06
0.50	0.50	0.20	0.78	0.85	0.90	0.93	0.97	1.00	1.02	1.05	1.06
	0.30		0.74	0.81	0.86	0.89	0.94	0.97	1.00	1.02	1.04
	0.20		0.70	0.78	0.83	0.86	0.91	0.95	0.97	1.01	1.03
0.30	0.50	0.20	0.77	0.83	0.88	0.91	0.95	0.97	0.99	1.01	1.02
	0.30		0.73	0.80	0.84	0.87	0.92	0.95	0.97	0.99	1.01
	0.20		0.70	0.77	0.81	0.85	0.90	0.92	0.95	0.98	0.99
0.00	0.00	0.00	0.68	0.74	0.79	0.82	0.86	0.89	0.90	0.93	0.94
Rating: 6W 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 = 0.50								
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	0.67	0.55	0.46	0.40	0.31	0.26	0.22	0.17	0.14
	0.30		0.56	0.47	0.40	0.35	0.28	0.24	0.20	0.16	0.13
	0.20		0.48	0.41	0.36	0.32	0.26	0.22	0.19	0.15	0.13
0.50	0.50	0.20	0.64	0.52	0.43	0.37	0.29	0.28	0.20	0.16	0.13
	0.30		0.54	0.45	0.38	0.33	0.27	0.22	0.19	0.15	0.12
	0.20		0.47	0.40	0.34	0.30	0.24	0.21	0.18	0.14	0.12
0.30	0.50	0.20	0.61	0.49	0.41	0.35	0.27	0.22	0.19	0.14	0.12
	0.30		0.52	0.43	0.36	0.32	0.25	0.21	0.18	0.14	0.11
	0.20		0.46	0.38	0.33	0.29	0.23	0.19	0.17	0.13	0.11
0.00	0.00	0.00	0.33	0.26	0.22	0.19	0.14	0.12	0.10	0.08	0.06
<p>Rating: 6W 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 = 0.50								
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	0.16	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.23
	0.30		0.11	0.13	0.14	0.15	0.17	0.19	0.19	0.21	0.22
	0.20		0.08	0.10	0.11	0.13	0.15	0.16	0.17	0.19	0.20
0.50	0.50	0.20	0.15	0.16	0.18	0.18	0.20	0.20	0.21	0.22	0.22
	0.30		0.11	0.13	0.14	0.15	0.17	0.18	0.19	0.20	0.21
	0.20		0.08	0.09	0.11	0.12	0.14	0.16	0.17	0.18	0.19
0.30	0.50	0.20	0.15	0.16	0.17	0.18	0.19	0.20	0.20	0.21	0.21
	0.30		0.11	0.12	0.14	0.15	0.16	0.17	0.18	0.19	0.20
	0.20		0.08	0.09	0.11	0.12	0.14	0.15	0.16	0.18	0.19
0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Rating: 6W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											