

Report No.:

Test Time: 2018/10/31 14:52

Luminaire Property

Luminaire Manufacturer:

Luminaire Category: MINI WALL WAHSER

Luminaire Description: MINIRGBW2424RGB6535TS (ALL)

Luminous Length (mm): 500

Luminous Width (mm): 50

Luminous Height (mm): 70

Voltage: 24.0 V

Current: 0.954 A

Power: 22.88 W

Power Factor: 1.000

Photometric Results

CIE Class: Direct

Measurement Flux: 1020.1 lm

Downward Ratio: 99%

Horizontal Diffuse Angle(50%): H37.2

Vertical Diffuse Angle(50%): V37.1

Luminaire Efficacy Rating (LER): 45

Max. Intensity: 1882.06 cd

Total Rated Lamp Lumens: 1020.1 lm

Efficiency: 100%

Upward Ratio: 1%

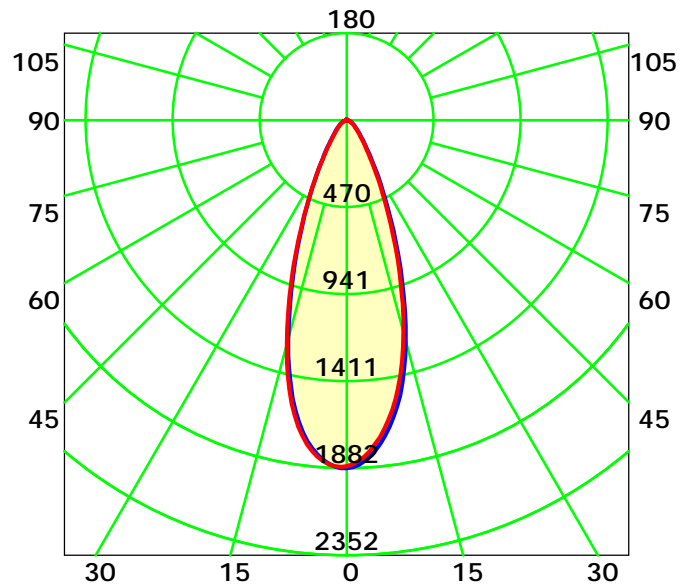
Central Intensity: 1882.05 cd

Pos of Max. Intensity: H0 V0

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 37.2° 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

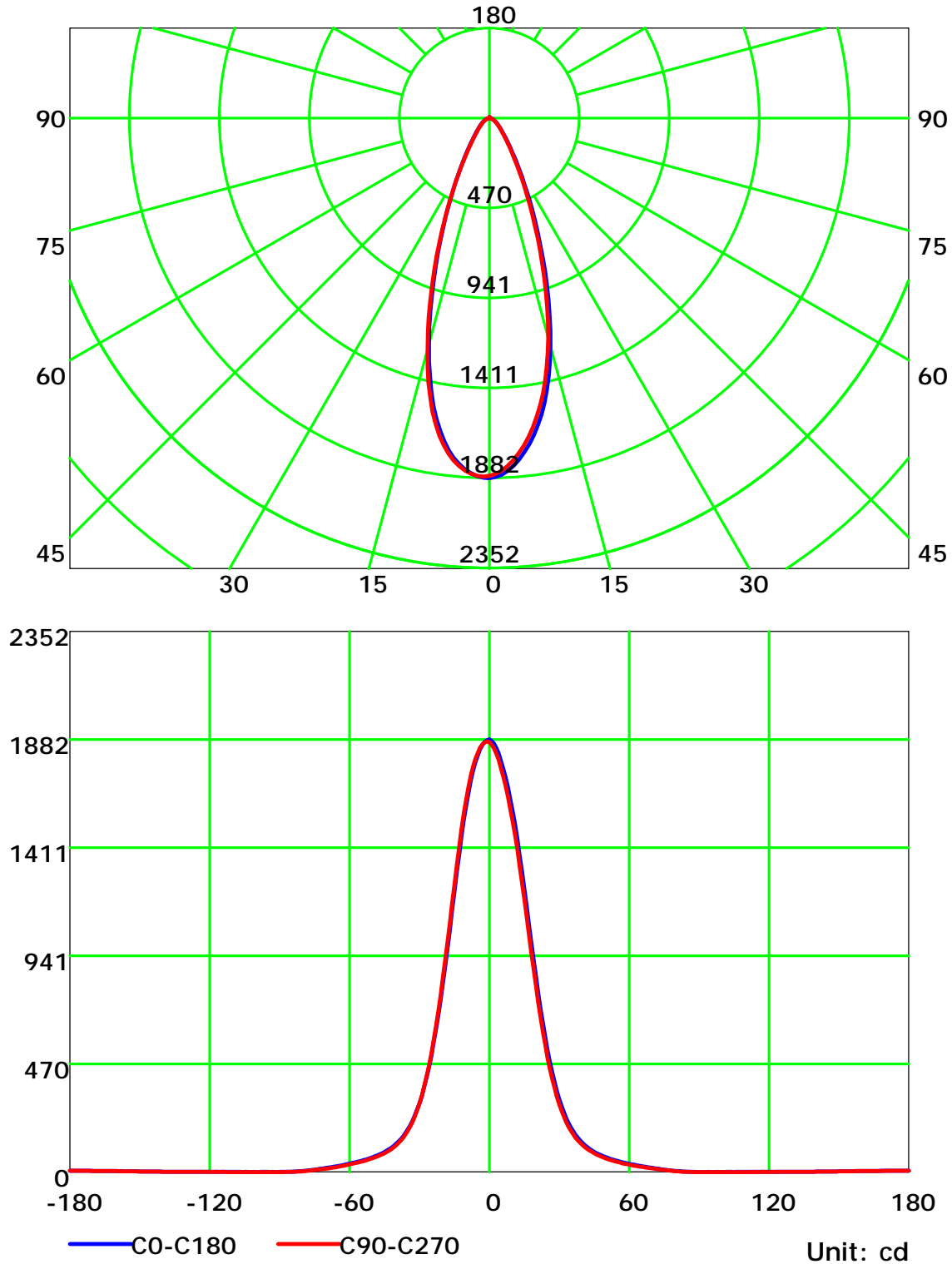
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

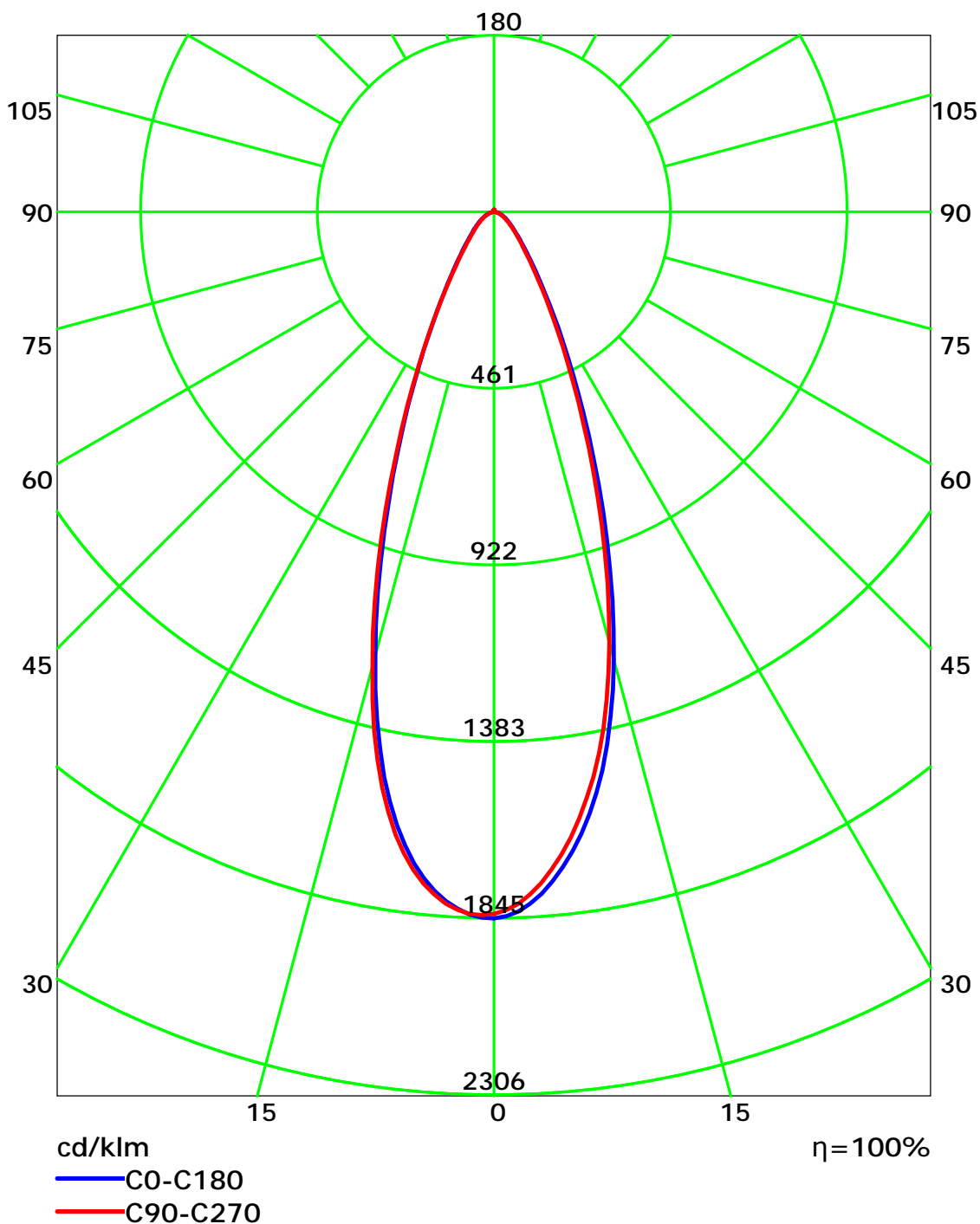
Luminous Intensity Distribution Curve



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:

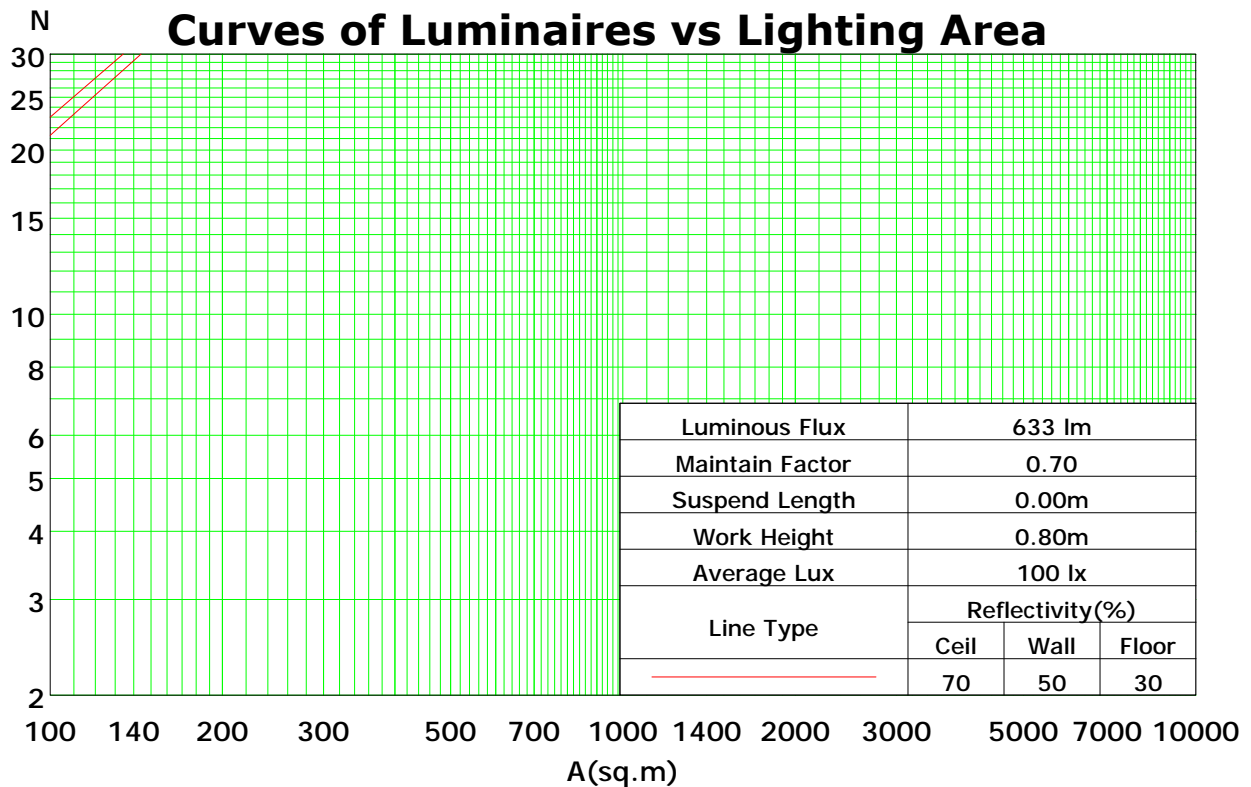
Coefficients Of Utilization - Zonal Cavity Method

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	101	101	101	99
1	113	110	107	105	110	108	105	103	103	102	100	100	98	97	96	95	94	92
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85
3	102	95	90	86	100	94	89	85	91	87	84	88	85	82	86	83	81	79
4	97	89	84	79	95	88	83	79	86	81	78	83	80	77	81	78	76	74
5	92	84	78	74	90	83	77	73	81	76	72	79	75	72	77	74	71	69
6	88	79	73	69	86	78	73	69	77	72	68	75	71	67	74	70	67	65
7	84	75	69	65	82	74	68	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	57	64	60	57	56
10	74	64	59	55	73	64	59	55	63	58	55	62	58	55	61	57	54	53

Spacing Criteria (0-180): 0.61

Spacing Criteria (90-270): 0.61

Spacing Criteria (Diagonal): 0.61



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

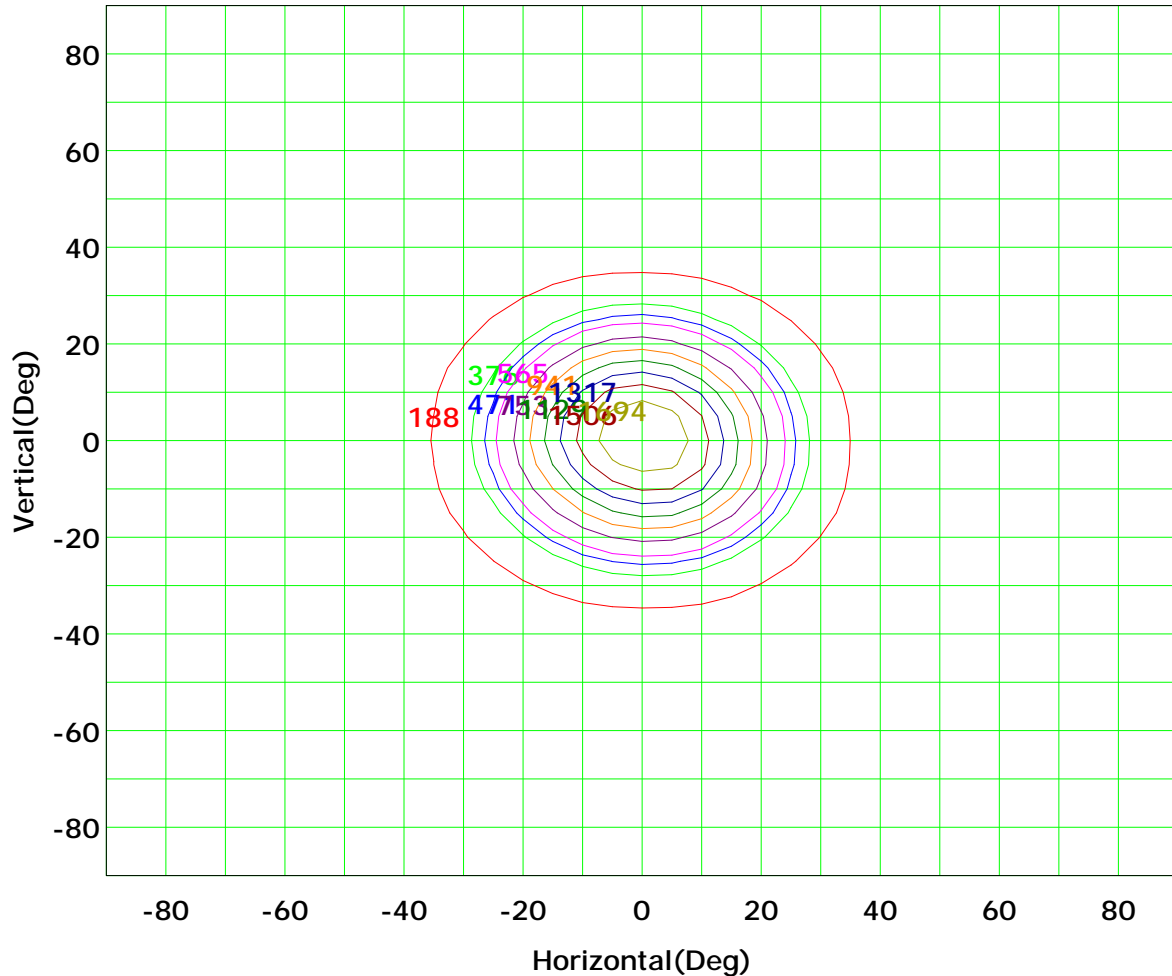
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Isocandela (rectangle)



Imax (100%): 1882 cd

(10%): 188 cd	(20%): 376 cd
(25%): 471 cd	(30%): 565 cd
(40%): 753 cd	(50%): 941 cd
(60%): 1129 cd	(70%): 1317 cd
(80%): 1506 cd	(90%): 1694 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

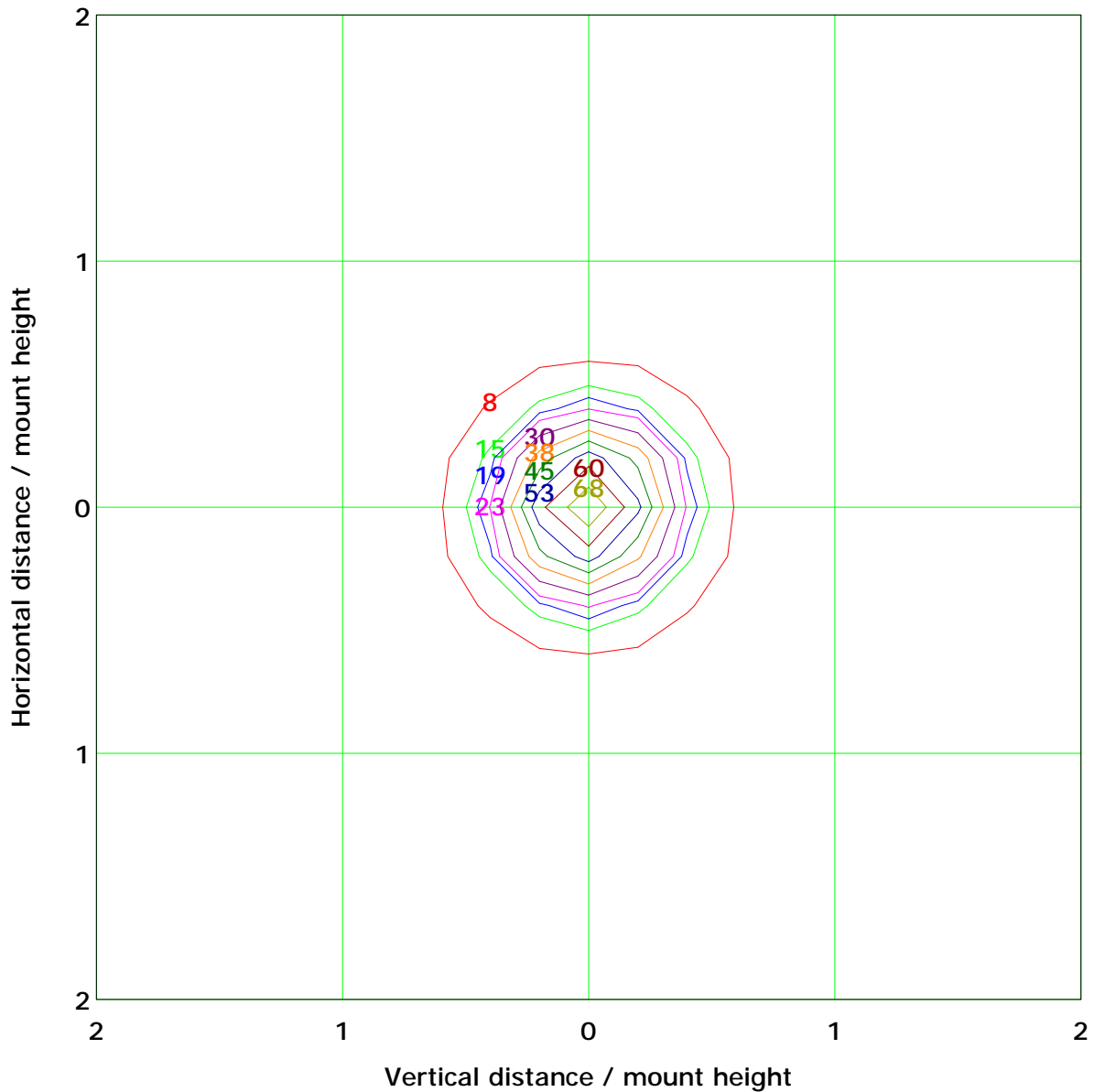
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

IsoLux Plot



Mounting Height: 5.0m Max Lux(100%): 75.3 lx	
(10%): 7.5 lx	(20%): 15.1 lx
(25%): 18.8 lx	(30%): 22.6 lx
(40%): 30.1 lx	(50%): 37.6 lx
(60%): 45.2 lx	(70%): 52.7 lx
(80%): 60.2 lx	(90%): 67.8 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

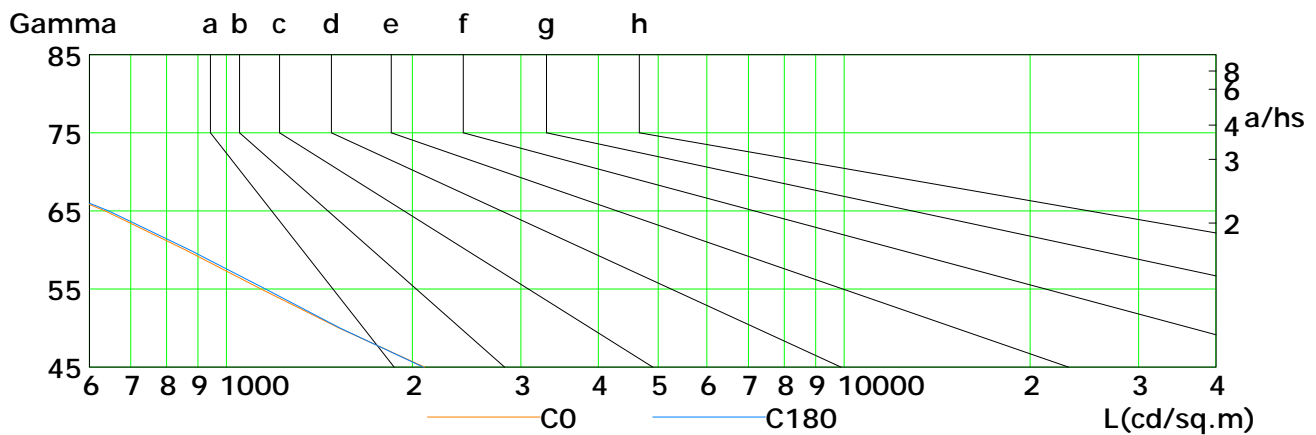
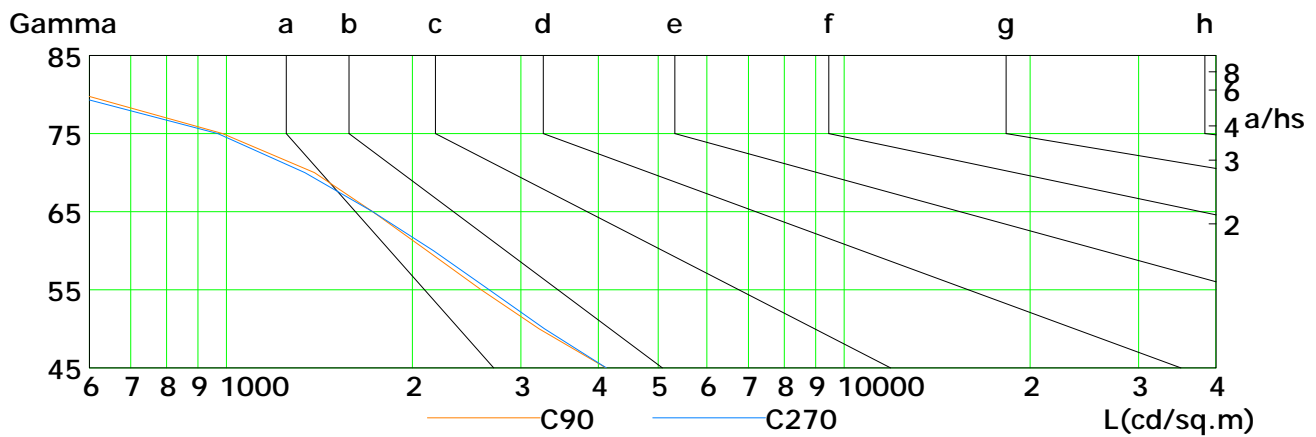
Humidity: 60%

Inspector:

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	2095	1523	1139	858	637	449	280	145	55
C90	4120	3211	2584	2114	1725	1389	986	586	279
C180	2084	1528	1156	872	645	448	279	137	52
C270	4123	3277	2666	2166	1725	1340	968	556	279

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

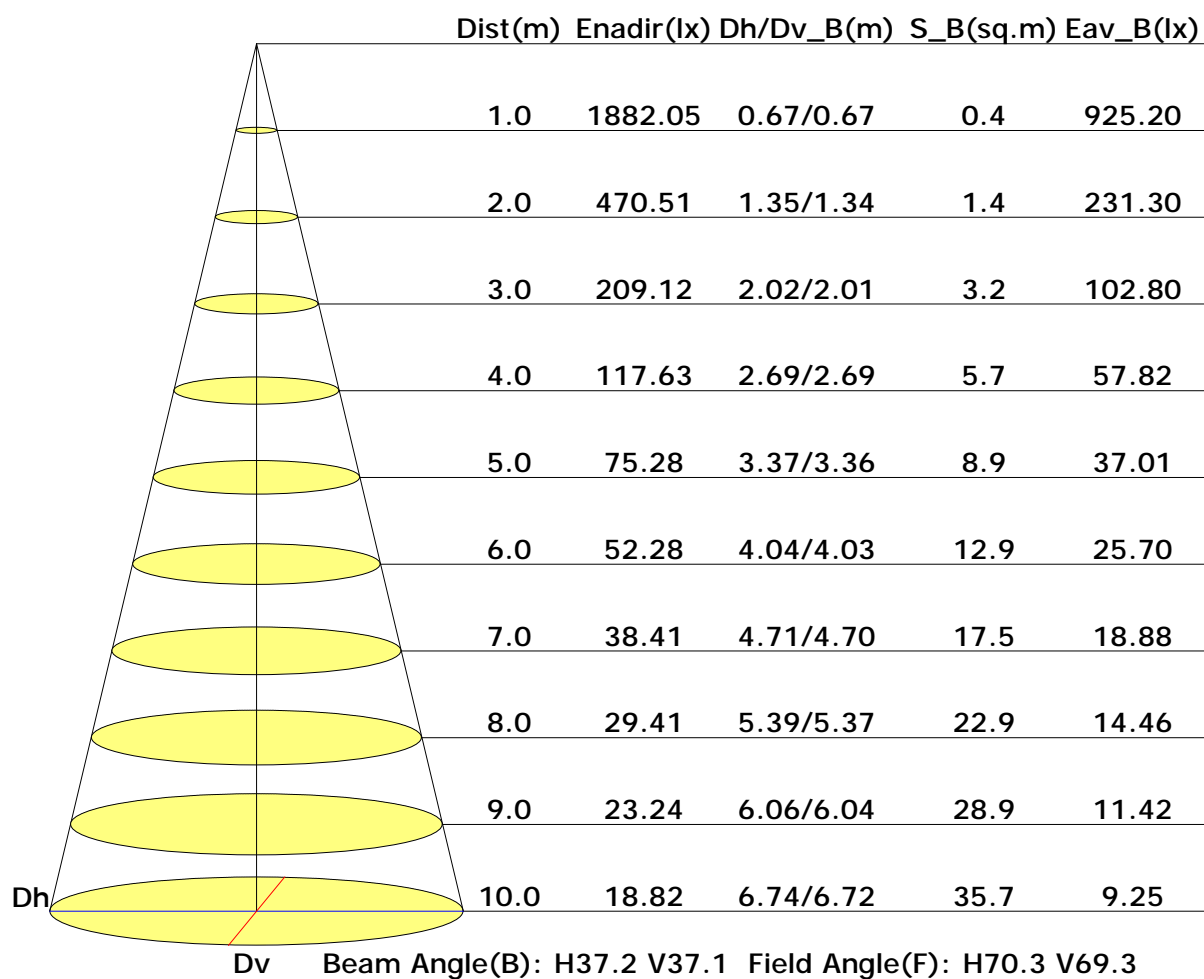
Test Device: GPM-1800B

Distance: 9.028 m

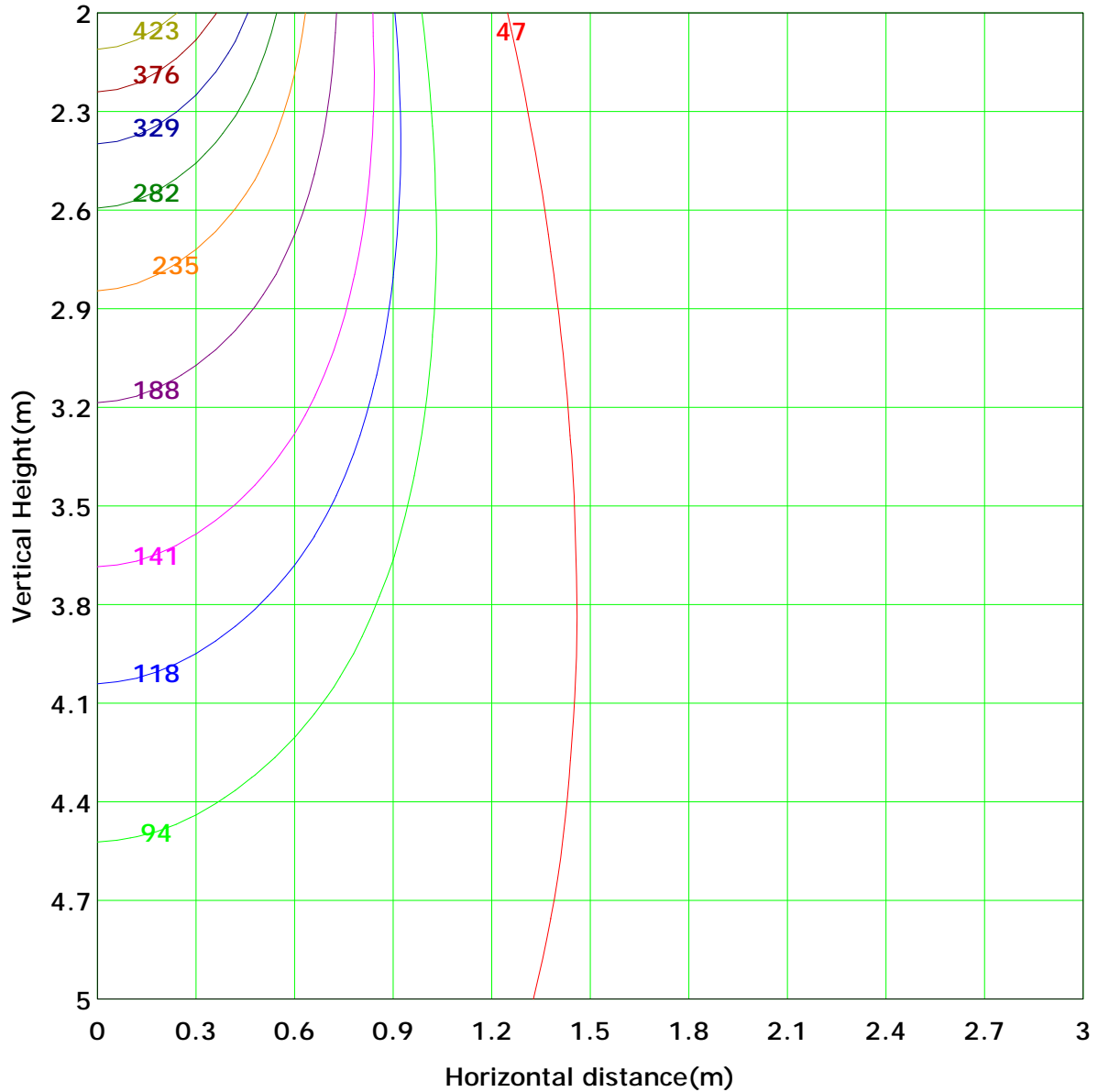
Humidity: 60%

Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 470.5 lx
(10%): 47.1 lx	(20%): 94.1 lx	
(25%): 117.6 lx	(30%): 141.2 lx	
(40%): 188.2 lx	(50%): 235.3 lx	
(60%): 282.3 lx	(70%): 329.4 lx	
(80%): 376.4 lx	(90%): 423.5 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:

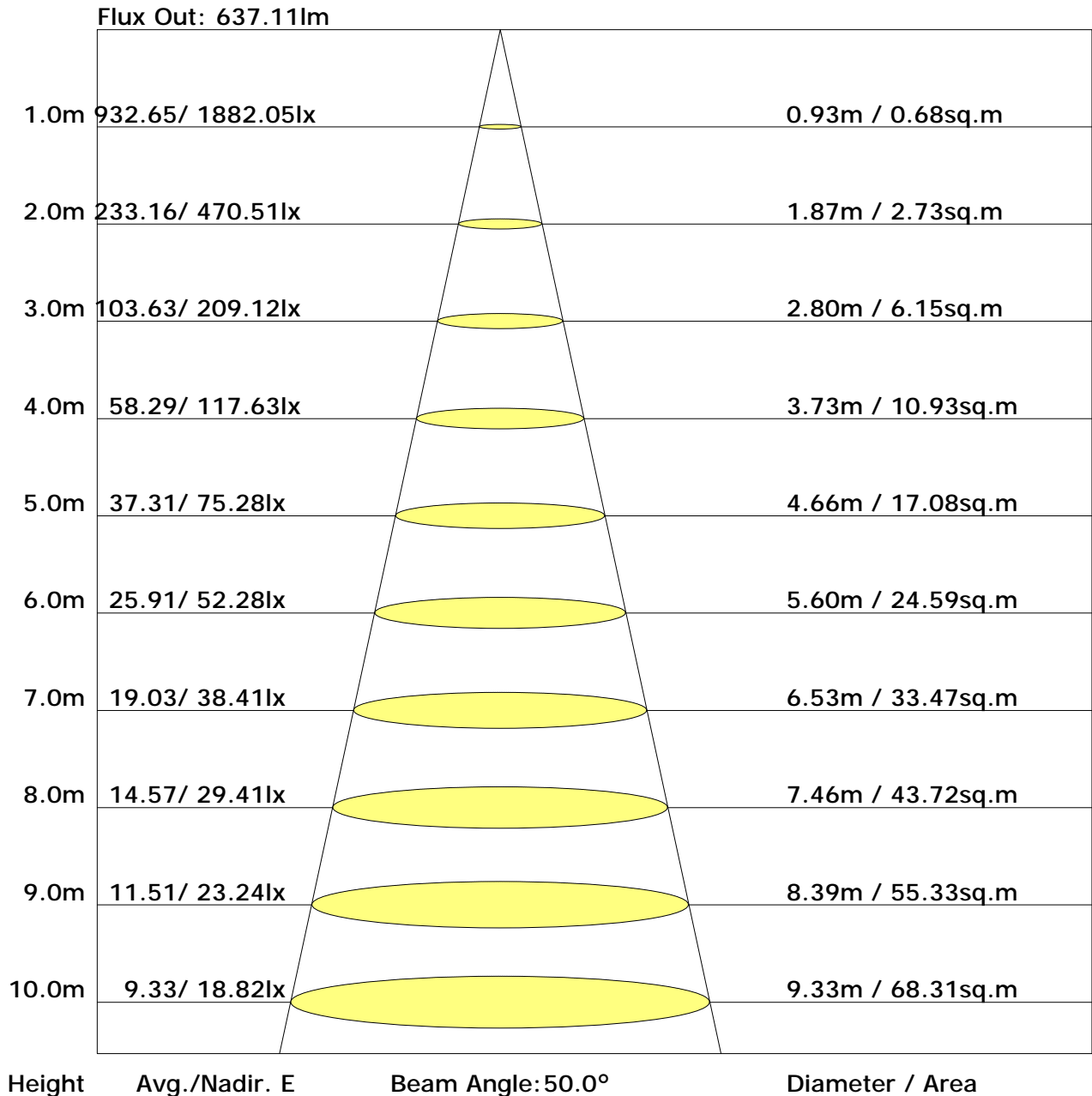


Area Flux Table

Unit: lm

		Orbit, m																		
-90	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	0.1	0.1	0.0	0.0	0.6	0.0
-80	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	2.4	0.0
-70	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.4	0.3	5.9	0.0
-60	0.0	0.0	0.1	0.3	0.5	0.8	1.0	1.3	1.4	1.4	1.4	1.3	1.1	0.8	0.5	0.3	0.1	0.0	10.9	0.0
-50	0.0	0.0	0.2	0.4	0.8	1.2	1.7	2.2	2.5	2.6	2.3	1.8	1.2	0.8	0.4	0.2	0.1	0.0	18.3	0.0
-40	0.0	0.1	0.2	0.6	1.1	1.8	2.9	4.3	5.5	5.6	4.5	3.0	1.9	1.1	0.6	0.2	0.1	0.0	33.4	8.1
-30	0.0	0.1	0.3	0.7	1.4	2.7	5.3	10.1	15.0	15.4	10.7	5.6	2.8	1.4	0.7	0.3	0.1	0.0	72.5	57.6
-20	0.0	0.1	0.3	0.8	1.7	3.8	9.6	21.9	34.8	35.8	23.1	10.1	3.9	1.7	0.8	0.3	0.1	0.0	148.8	137.2
-10	0.0	0.1	0.4	0.9	1.9	4.7	13.6	33.3	51.4	51.4	34.2	14.4	4.9	1.9	0.9	0.4	0.1	0.0	214.5	204.0
0	0.0	0.1	0.4	0.9	1.9	4.8	14.0	34.3	50.9	49.3	32.7	14.1	4.9	1.9	0.9	0.4	0.1	0.0	211.4	201.0
10	0.0	0.1	0.3	0.8	1.7	3.9	10.2	23.1	34.5	32.9	21.2	9.6	3.8	1.7	0.8	0.3	0.1	0.0	145.3	133.9
20	0.0	0.1	0.3	0.7	1.4	2.8	5.6	10.7	15.1	14.6	10.0	5.3	2.7	1.4	0.7	0.3	0.1	0.0	71.8	56.8
30	0.0	0.1	0.2	0.6	1.1	1.9	4.5	5.6	5.5	4.3	2.9	1.8	1.1	0.6	0.2	0.1	0.0	33.5	7.9	
40	0.0	0.1	0.2	0.4	0.8	1.2	1.7	2.2	2.5	2.2	1.7	1.2	0.8	0.4	0.2	0.1	0.0	18.4	0.0	
50	0.0	0.0	0.1	0.3	0.5	0.8	1.0	1.2	1.4	1.2	1.0	0.8	0.5	0.3	0.1	0.0	0.0	10.8	0.0	
60	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.7	0.7	0.7	0.6	0.4	0.3	0.2	0.1	0.0	0.0	5.9	0.0	
70	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	2.5	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	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	
90	0.1	0.9	3.3	7.9	15.8	31.6	71.4	151.1	222.8	220.5	149.7	72.2	32.0	15.7	7.8	3.3	0.9	0.1	1008	
Flux(E)	0.0	0.0	0.0	0.0	0.0	7.6	53.9	135.3	207.8	205.3	133.9	54.6	8.2	0.0	0.0	0.0	0.0	0.0		807
Horizontal plane																				

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	9.6	10.6	10.0	11.0	11.3	7.3	8.4	7.7	8.7	9.1
3H	10.6	11.6	11.0	11.9	12.3	8.0	9.0	8.4	9.3	9.7
4H	10.9	11.8	11.4	12.2	12.6	8.2	9.1	8.6	9.4	9.9
6H	11.0	11.9	11.5	12.2	12.7	8.2	9.0	8.6	9.4	9.8
8H	11.0	11.8	11.5	12.2	12.7	8.2	8.9	8.6	9.3	9.8
12H	11.0	11.7	11.5	12.2	12.6	8.1	8.8	8.6	9.2	9.7
X=4H Y=2H	9.6	10.5	10.1	10.9	11.3	7.7	8.5	8.1	8.9	9.3
3H	10.8	11.5	11.2	12.0	12.4	8.5	9.2	9.0	9.7	10.1
4H	11.1	11.8	11.6	12.2	12.7	8.7	9.4	9.2	9.8	10.3
6H	11.3	11.9	11.8	12.3	12.8	8.8	9.3	9.2	9.8	10.3
8H	11.3	11.8	11.8	12.3	12.8	8.7	9.2	9.2	9.7	10.2
12H	11.3	11.7	11.8	12.2	12.8	8.7	9.1	9.2	9.6	10.1
X=8H Y=4H	11.1	11.6	11.6	12.0	12.6	8.8	9.3	9.2	9.7	10.2
6H	11.2	11.7	11.8	12.2	12.7	8.8	9.2	9.3	9.8	10.3
8H	11.3	11.6	11.8	12.2	12.7	8.8	9.2	9.3	9.7	10.2
12H	11.3	11.6	11.8	12.1	12.7	8.8	9.1	9.3	9.6	10.2
X=12H Y=4H	11.0	11.5	11.5	12.0	12.5	8.7	9.2	9.2	9.7	10.2
6H	11.2	11.6	11.7	12.1	12.6	8.8	9.1	9.3	9.6	10.2
8H	11.2	11.5	11.8	12.1	12.7	8.8	9.1	9.3	9.6	10.2

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 = 0.75								
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	0.83	0.90	0.94	0.97	1.01	1.04	1.06	1.09	1.10
	0.30		0.79	0.85	0.90	0.93	0.98	1.01	1.03	1.06	1.08
	0.20		0.75	0.82	0.86	0.90	0.95	0.98	1.01	1.04	1.06
0.50	0.50	0.20	0.82	0.88	0.92	0.95	0.98	1.01	1.02	1.05	1.06
	0.30		0.78	0.84	0.88	0.91	0.95	0.98	1.00	1.03	1.04
	0.20		0.75	0.81	0.85	0.88	0.93	0.96	0.98	1.01	1.03
0.30	0.50	0.20	0.81	0.86	0.90	0.92	0.96	0.98	0.99	1.01	1.02
	0.30		0.77	0.83	0.87	0.89	0.93	0.96	0.97	0.99	1.01
	0.20		0.74	0.80	0.84	0.87	0.91	0.94	0.96	0.98	1.00
0.00	0.00	0.00	0.73	0.78	0.82	0.84	0.88	0.90	0.92	0.94	0.95
<p>Rating: 23W 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 = 0.75								
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	0.60	0.49	0.41	0.36	0.28	0.23	0.20	0.15	0.13
	0.30		0.50	0.42	0.36	0.32	0.26	0.22	0.18	0.15	0.12
	0.20		0.43	0.37	0.32	0.28	0.23	0.20	0.17	0.14	0.11
0.50	0.50	0.20	0.57	0.46	0.39	0.33	0.26	0.26	0.18	0.14	0.11
	0.30		0.48	0.40	0.34	0.30	0.24	0.20	0.17	0.13	0.11
	0.20		0.42	0.35	0.31	0.27	0.22	0.19	0.16	0.13	0.11
0.30	0.50	0.20	0.55	0.44	0.36	0.31	0.24	0.20	0.17	0.13	0.11
	0.30		0.47	0.38	0.33	0.28	0.23	0.19	0.16	0.12	0.10
	0.20		0.41	0.34	0.30	0.26	0.21	0.17	0.15	0.12	0.10
0.00	0.00	0.00	0.27	0.22	0.18	0.16	0.12	0.10	0.08	0.06	0.05
Rating: 23W 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(Ceiling cavity)

Utilisation Factors UF(C)			SHR NOM = 0.75								
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	0.14	0.16	0.17	0.18	0.19	0.20	0.21	0.22	0.22
	0.30		0.10	0.12	0.13	0.15	0.16	0.18	0.19	0.20	0.21
	0.20		0.07	0.09	0.11	0.12	0.14	0.16	0.17	0.18	0.19
0.50	0.50	0.20	0.14	0.15	0.16	0.17	0.19	0.19	0.20	0.21	0.21
	0.30		0.10	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20
	0.20		0.07	0.09	0.11	0.12	0.14	0.15	0.16	0.18	0.19
0.30	0.50	0.20	0.13	0.15	0.16	0.17	0.18	0.19	0.19	0.20	0.20
	0.30		0.10	0.11	0.13	0.14	0.15	0.17	0.17	0.18	0.19
	0.20		0.07	0.09	0.10	0.12	0.13	0.15	0.16	0.17	0.18
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: 23W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											