

Report No.:

Test Time: 2018/10/29 10:39

Luminaire Property

Luminaire Manufacturer:

Luminaire Category: MINI WALL WAHSE

Luminaire Description: MINIRGBW2424RGB6515TS (ALL)

Luminous Length (mm): 500

Luminous Width (mm): 50

Luminous Height (mm): 70

Voltage: 24.0 V

Current: 0.961 A

Power: 23.07 W

Power Factor: 1.000

Photometric Results

CIE Class: Direct

Measurement Flux: 1205.3 lm

Downward Ratio: 94%

Horizontal Diffuse Angle(50%): H15.5

Vertical Diffuse Angle(50%): V15.4

Luminaire Efficacy Rating (LER): 52

Max. Intensity: 5203.46 cd

Total Rated Lamp Lumens: 1205.3 lm

Efficiency: 100%

Upward Ratio: 6%

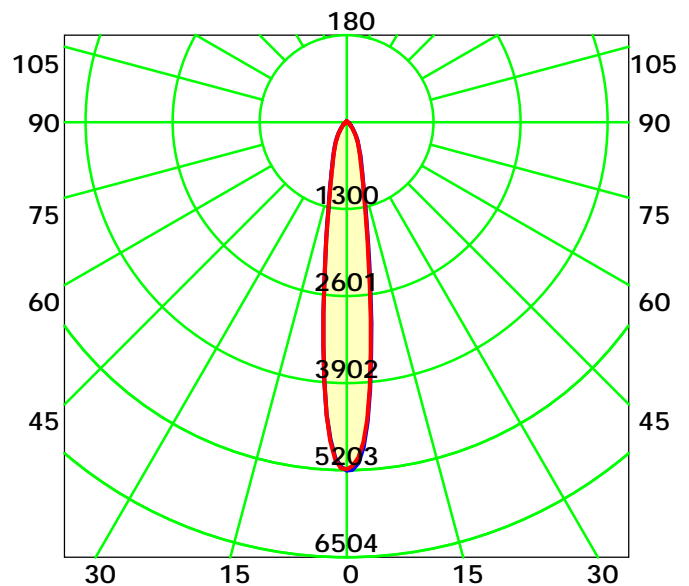
Central Intensity: 5203.46 cd

Pos of Max. Intensity: H0 V0

Picture Of Luminaire



Luminous Intensity Distribution Curve



Average Diffuse Angle(50%): 15.5° 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

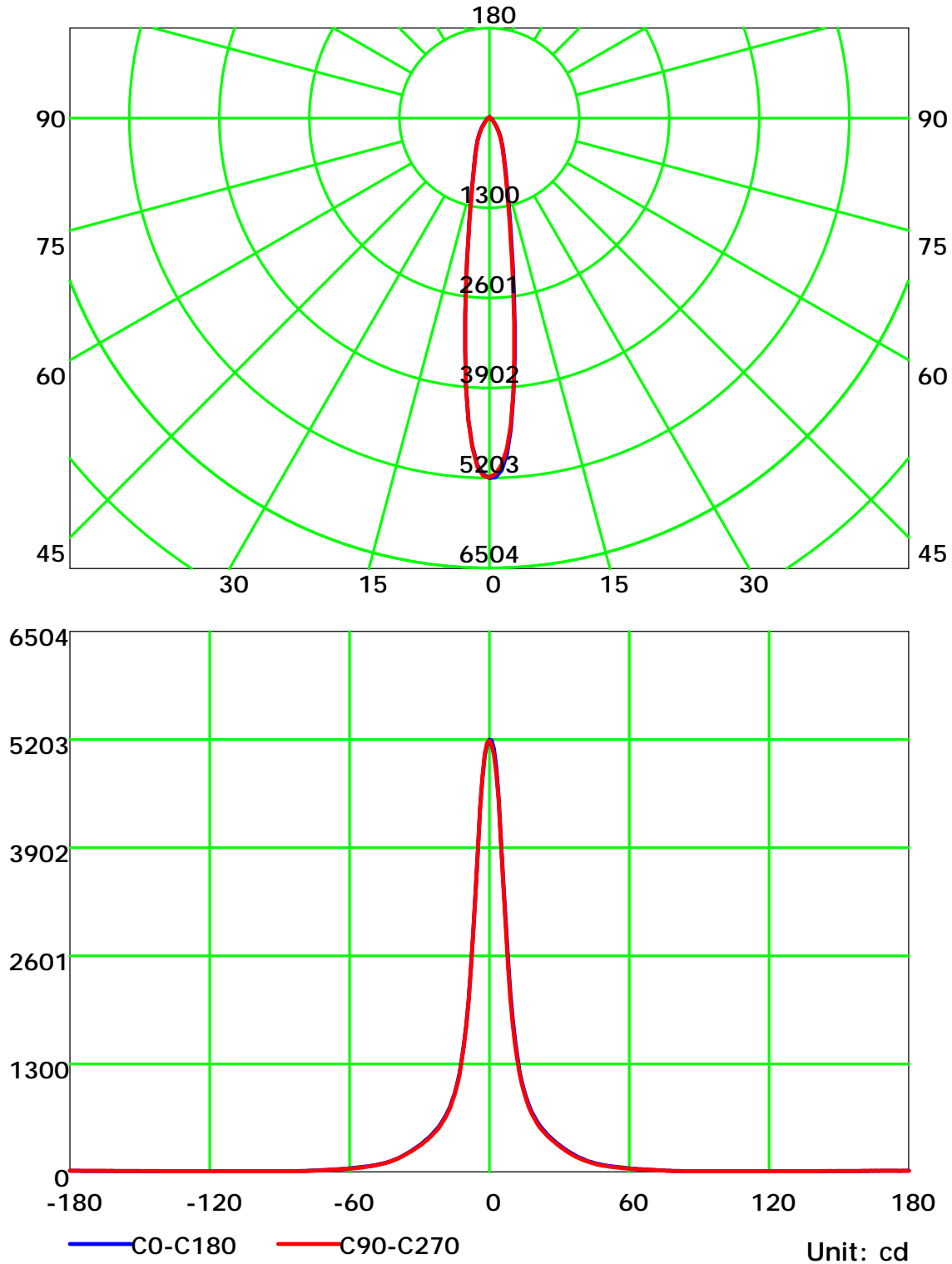
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

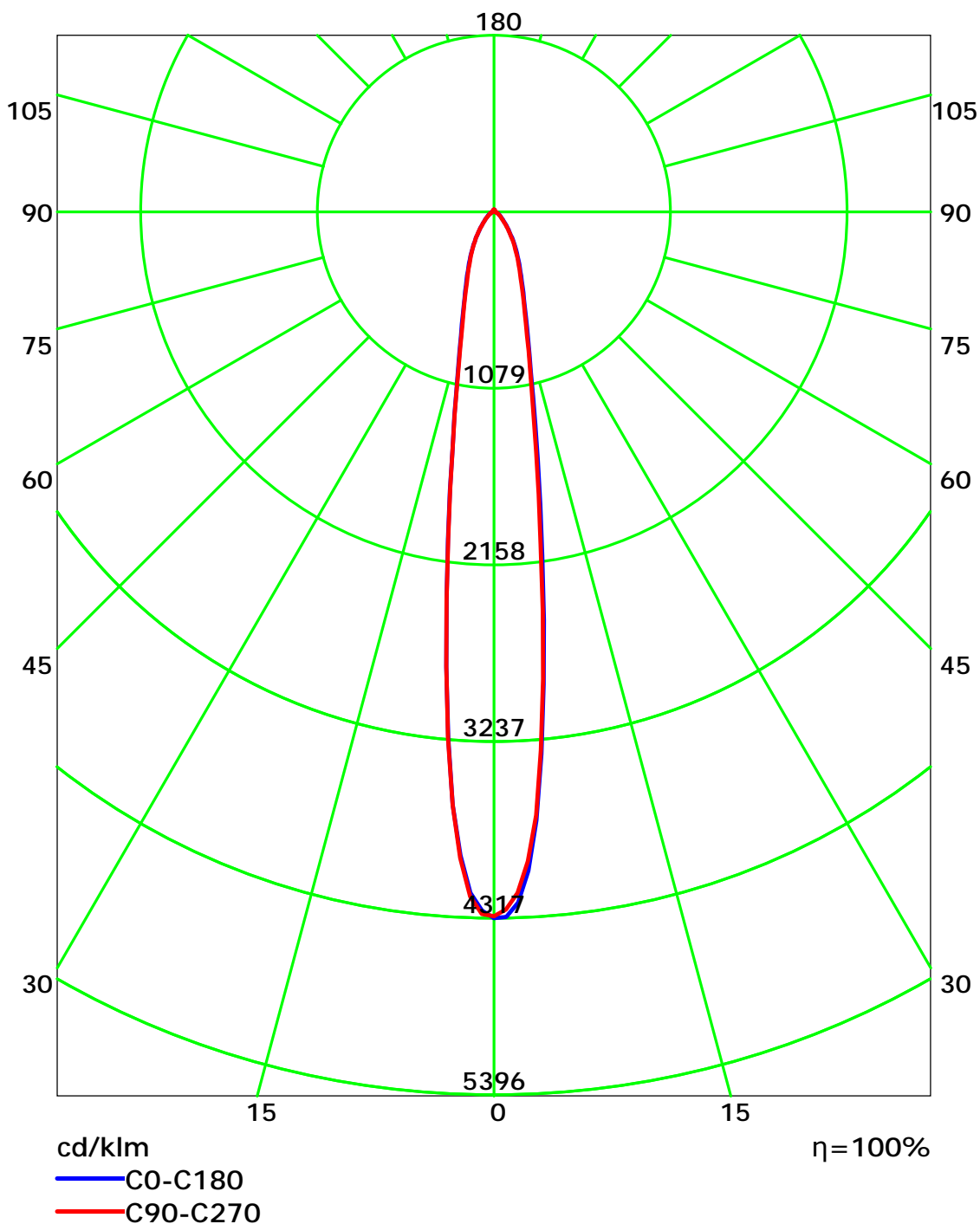
Luminous Intensity Distribution Curve



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:

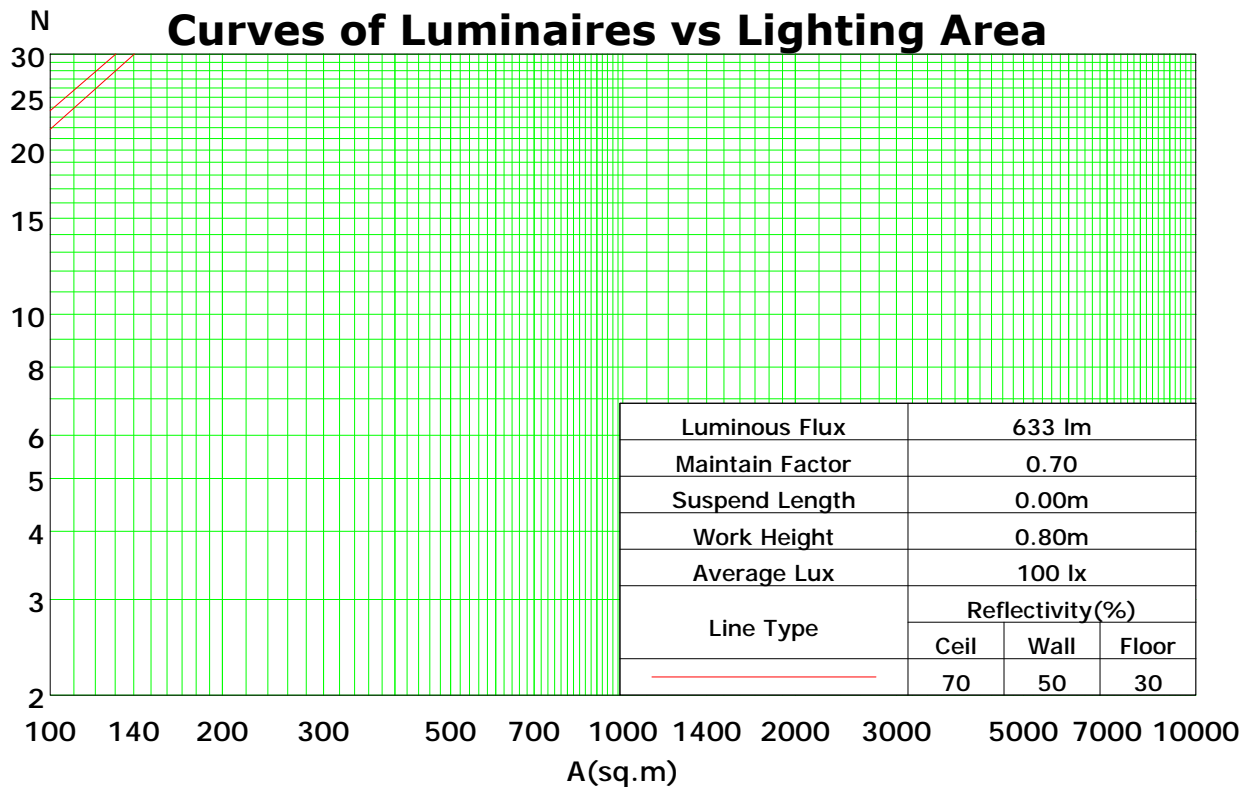
Coefficients Of Utilization - Zonal Cavity Method

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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	111	108	105	103	108	105	103	101	100	98	96	95	94	92	91	90	89	86
2	105	100	96	92	102	98	94	90	93	90	87	89	87	85	86	84	82	80
3	100	93	88	84	97	91	86	83	88	84	80	84	81	78	81	79	76	75
4	95	87	81	77	93	86	80	76	83	78	75	80	76	73	77	74	72	70
5	90	82	76	72	88	81	75	71	78	73	70	76	72	69	74	70	68	66
6	86	77	72	67	84	76	71	67	74	69	66	72	68	65	70	67	64	62
7	83	74	68	64	81	73	67	63	71	66	62	69	65	62	67	64	61	59
8	79	70	64	60	78	69	64	60	68	63	59	66	62	59	65	61	58	57
9	76	67	61	58	75	66	61	57	65	60	57	64	59	56	62	59	56	54
10	73	64	59	55	72	64	58	55	62	58	54	61	57	54	60	56	54	52

Spacing Criteria (0-180): 0.27

Spacing Criteria (90-270): 0.27

Spacing Criteria (Diagonal): 0.30



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

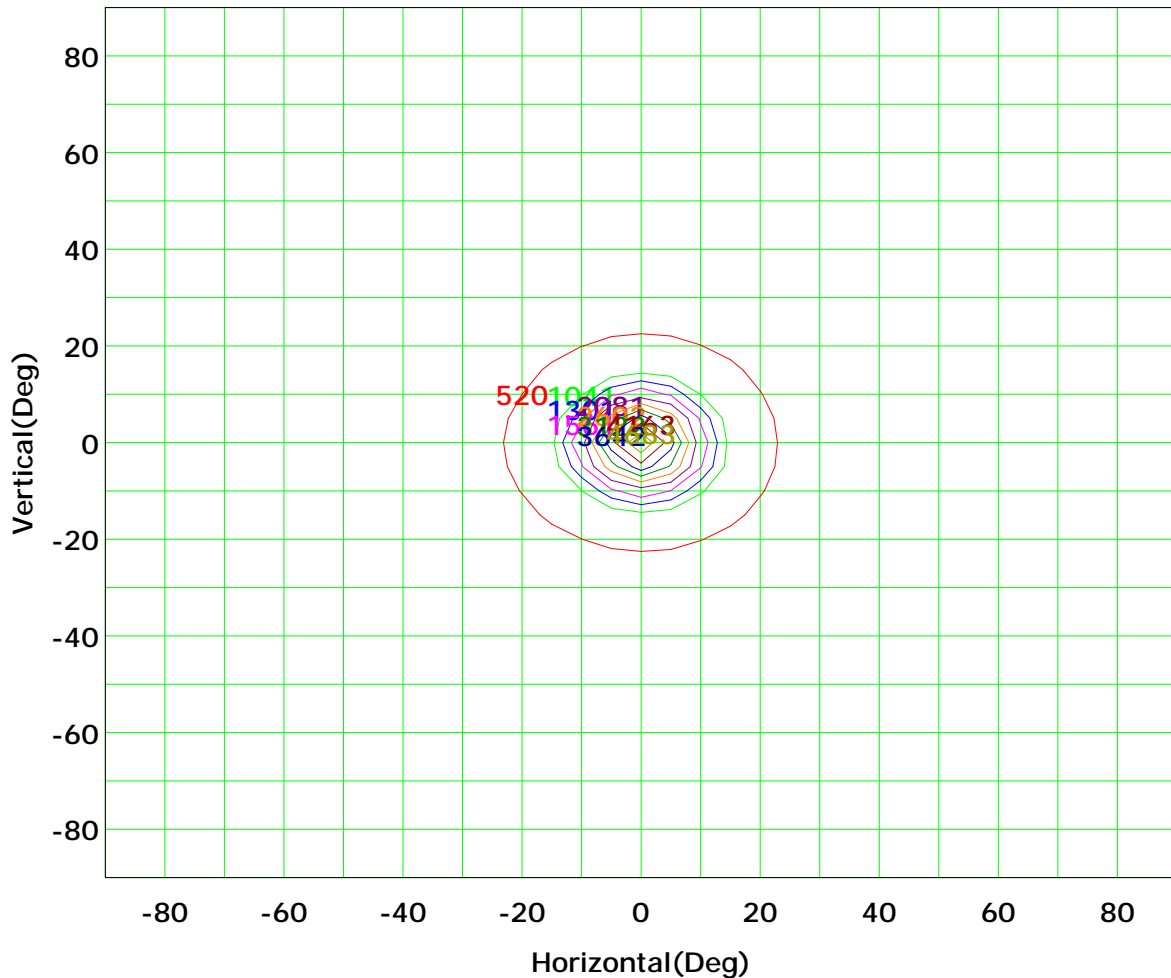
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Isocandela (rectangle)



Imax (100%): 5203 cd

(10%): 520 cd	(20%): 1041 cd
(25%): 1301 cd	(30%): 1561 cd
(40%): 2081 cd	(50%): 2602 cd
(60%): 3122 cd	(70%): 3642 cd
(80%): 4163 cd	(90%): 4683 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

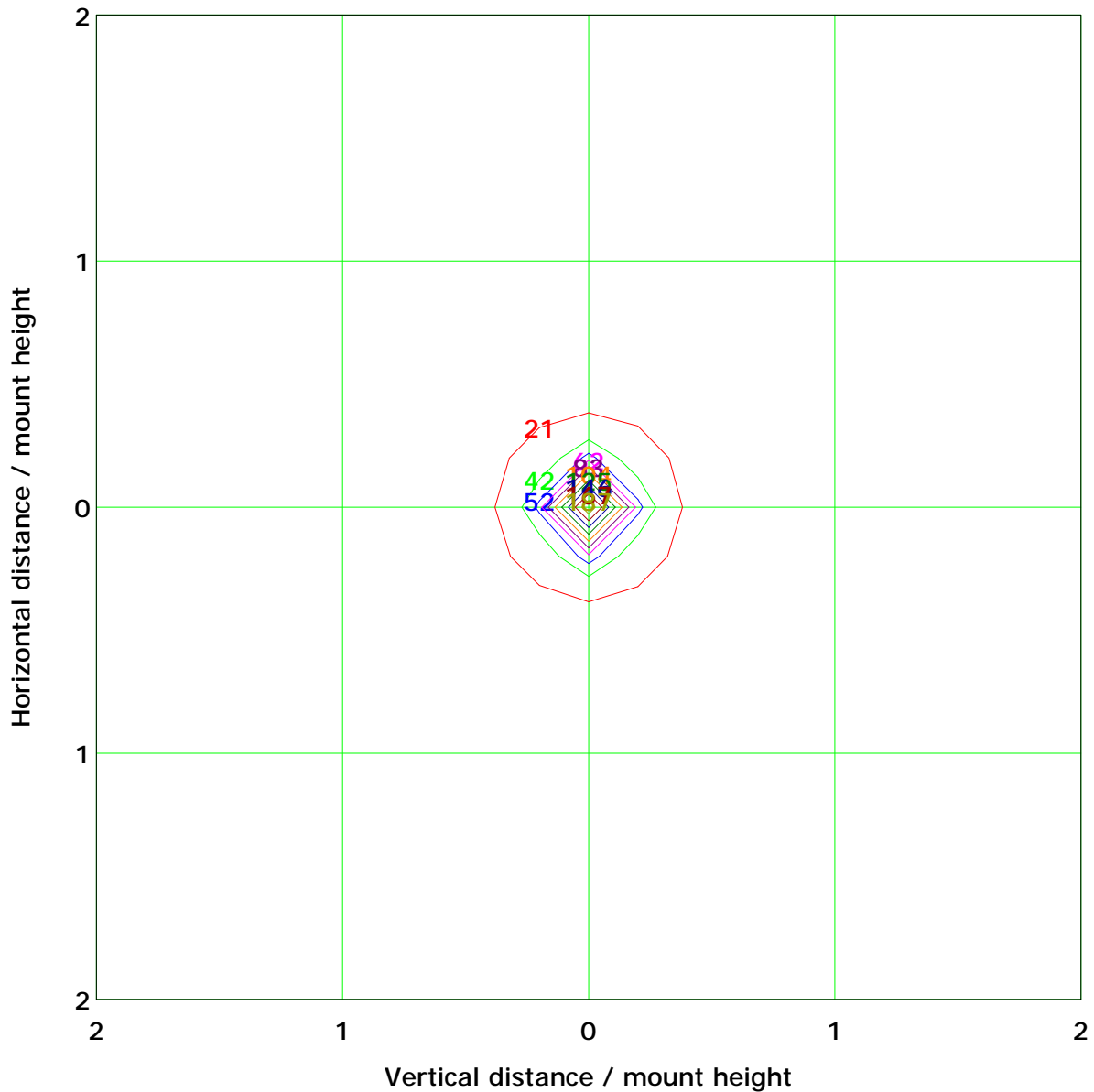
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

IsoLux Plot



Mounting Height: 5.0m		Max Lux(100%): 208.1 lx	
(10%): 20.8 lx		(20%): 41.6 lx	
(25%): 52.0 lx		(30%): 62.4 lx	
(40%): 83.3 lx		(50%): 104.1 lx	
(60%): 124.9 lx		(70%): 145.7 lx	
(80%): 166.5 lx		(90%): 187.3 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

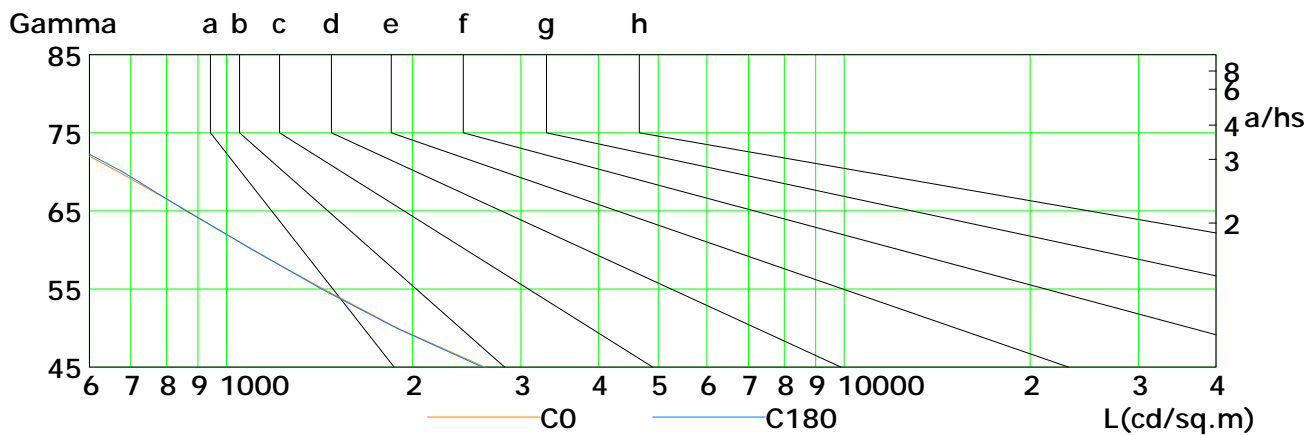
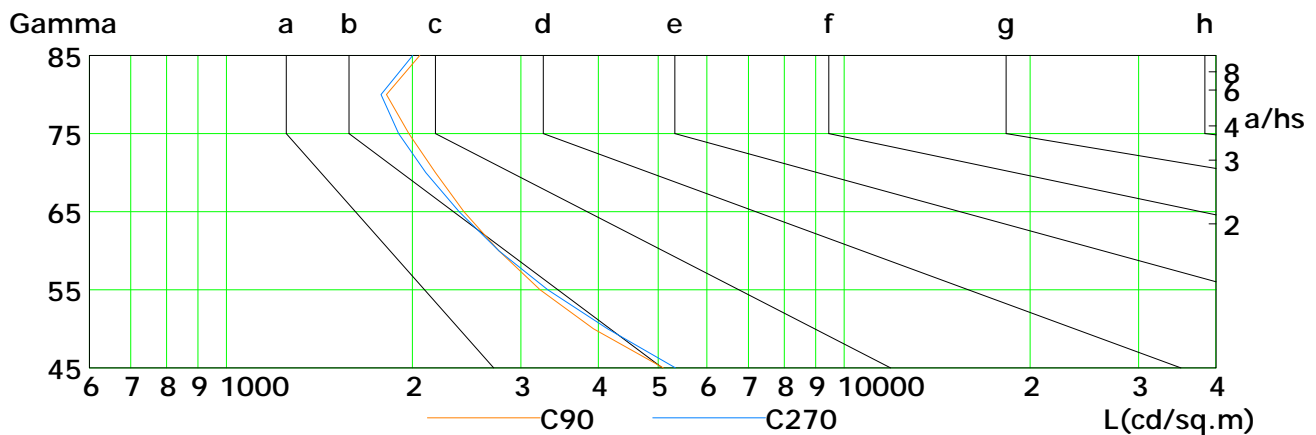
Humidity: 60%

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	2624	1891	1436	1102	865	669	512	384	306
C90	5099	3931	3221	2762	2425	2179	1975	1817	2056
C180	2599	1884	1426	1105	861	680	516	384	310
C270	5333	4143	3316	2762	2383	2105	1900	1780	2003

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

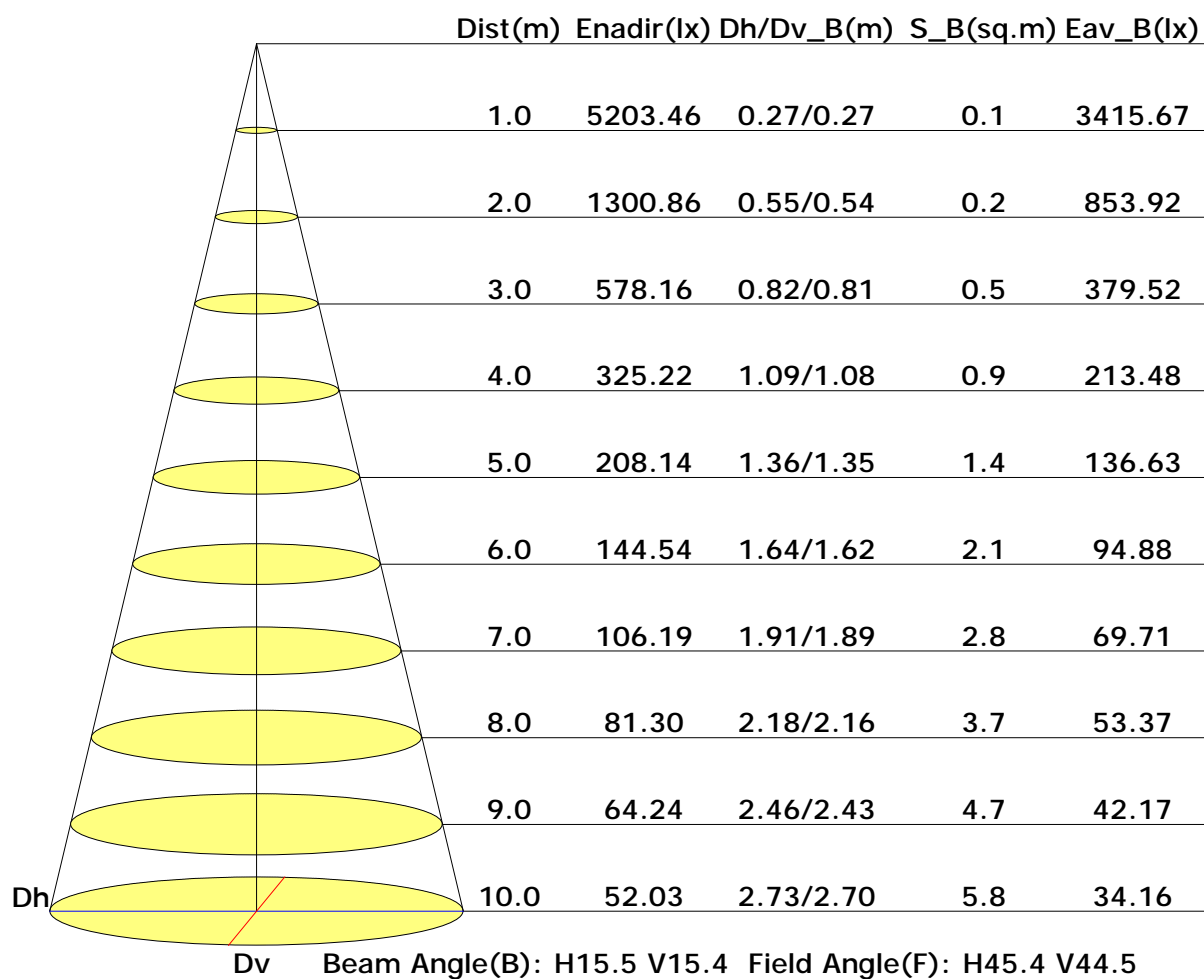
Test Device: GPM-1800B

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

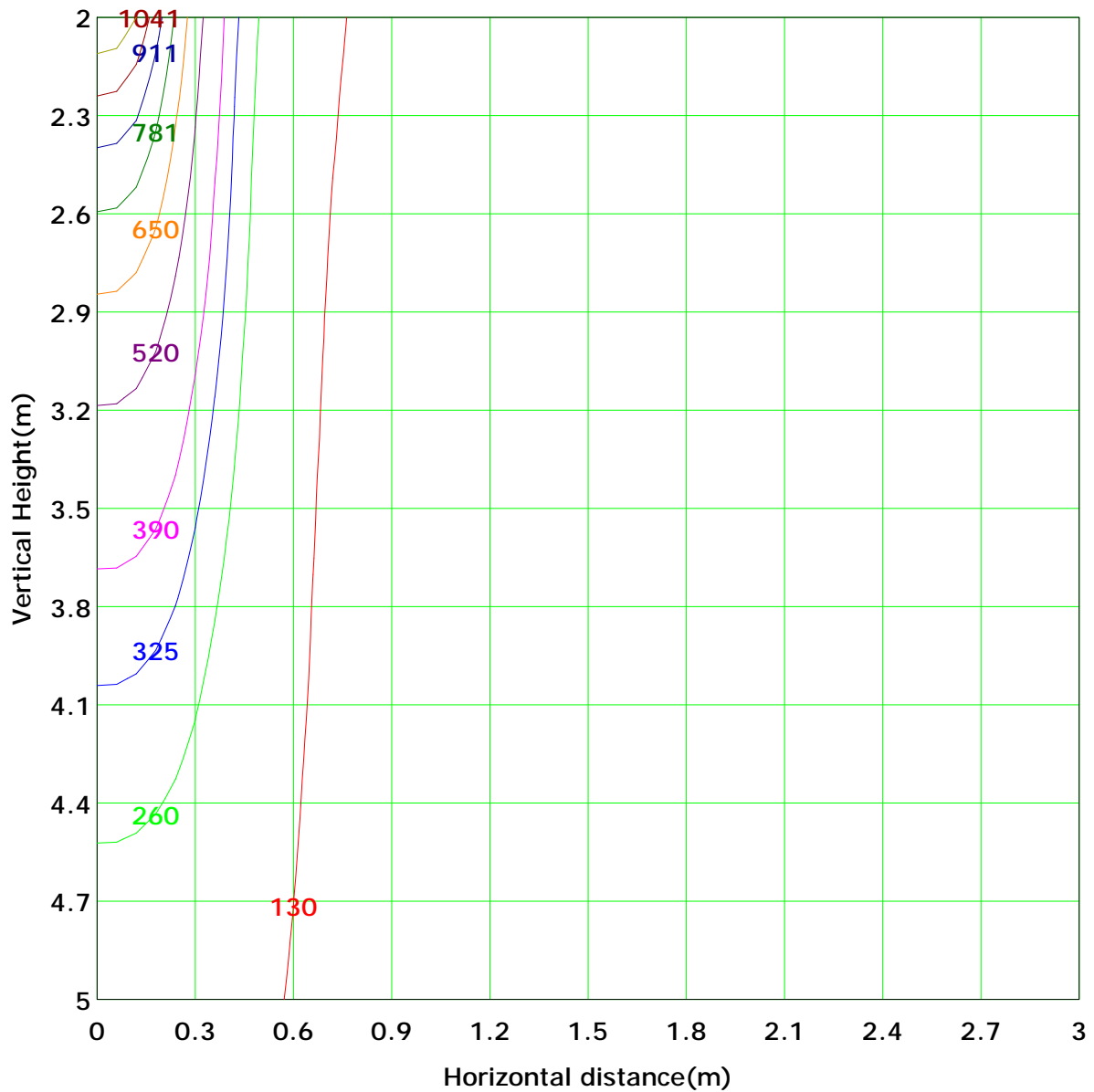
Test Device: GPM-1800B

Distance: 9.028 m

Humidity: 60%

Inspector:

Vertical IsoLux Plot



Lowest(m): 2.0m	Highest(m): 5.0m	Max Lux: 1300.9 lx
(10%): 130.1 lx	(20%): 260.2 lx	
(25%): 325.2 lx	(30%): 390.3 lx	
(40%): 520.3 lx	(50%): 650.4 lx	
(60%): 780.5 lx	(70%): 910.6 lx	
(80%): 1040.7 lx	(90%): 1170.8 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

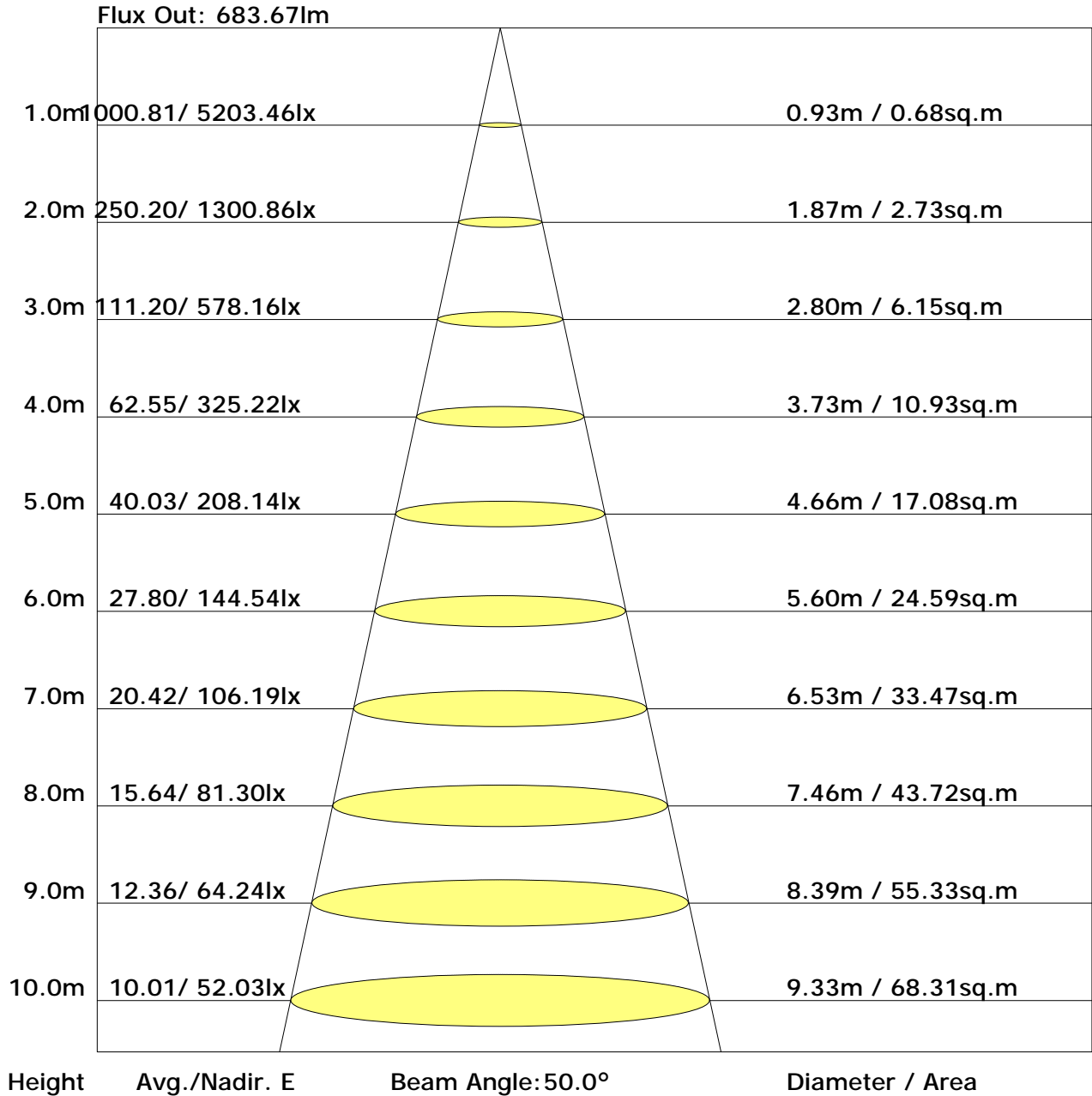
Unit: lm

		Orbit: int																					
		-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90			
Vertical plane		0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.0	4.1	0.0	
-90	0.0	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.3	0.2	0.2	0.1	0.0	5.7	0.0	
-80	0.0	0.1	0.2	0.3	0.5	0.7	0.8	0.9	1.0	1.0	0.9	0.8	0.7	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	9.1	0.0
-70	0.0	0.1	0.2	0.5	0.7	1.0	1.3	1.6	1.8	1.7	1.6	1.3	1.0	1.0	0.9	0.8	0.7	0.5	0.3	0.2	0.1	0.0	0.0
-60	0.0	0.1	0.2	0.5	0.7	1.0	1.3	1.6	1.8	1.7	1.6	1.3	1.0	0.9	0.8	0.7	0.5	0.3	0.2	0.1	0.0	14.6	0.0
-50	0.0	0.1	0.3	0.6	1.0	1.6	2.2	2.9	3.3	3.3	2.9	2.2	1.5	1.0	0.7	0.5	0.3	0.2	0.1	0.0	23.9	0.0	
-40	0.0	0.1	0.4	0.8	1.4	2.3	3.8	5.6	6.8	6.8	5.5	3.8	2.3	1.3	0.7	0.4	0.3	0.2	0.1	0.0	42.2	0.0	
-30	0.0	0.2	0.4	0.9	1.7	3.4	6.5	10.3	13.0	12.9	10.0	6.4	3.4	1.7	0.9	0.4	0.2	0.1	0.0	0.0	72.5	5.0	
-20	0.0	0.2	0.5	1.0	2.1	4.8	9.8	17.2	27.6	27.4	16.8	9.4	4.7	2.1	1.0	0.5	0.2	0.1	0.0	0.0	125.3	78.8	
-10	0.0	0.2	0.5	1.1	2.4	5.7	12.1	27.0	83.7	82.6	27.0	12.1	5.7	2.4	1.1	0.5	0.2	0.1	0.0	264.4	226.4		
0	0.0	0.2	0.5	1.1	2.4	5.7	12.2	27.8	86.3	84.4	27.5	12.2	5.7	2.4	1.1	0.5	0.2	0.1	0.0	270.1	232.6		
10	0.0	0.2	0.5	1.0	2.2	4.9	9.8	17.5	28.3	27.6	17.1	9.6	4.7	2.1	1.0	0.5	0.2	0.1	0.0	127.0	81.3		
20	0.0	0.2	0.4	0.9	1.8	3.5	6.5	10.2	13.0	12.9	10.0	6.3	3.3	1.7	0.9	0.4	0.2	0.1	0.0	72.2	5.1		
30	0.0	0.1	0.4	0.8	1.4	2.4	3.8	5.5	6.7	6.6	5.3	3.6	2.2	1.3	0.7	0.4	0.1	0.0	0.0	41.2	0.0		
40	0.0	0.1	0.3	0.6	1.0	1.6	2.2	2.8	3.2	3.1	2.7	2.1	1.5	1.0	0.6	0.3	0.1	0.0	0.0	23.3	0.0		
50	0.0	0.1	0.3	0.5	0.7	1.0	1.3	1.6	1.7	1.7	1.5	1.3	1.0	0.7	0.4	0.2	0.1	0.0	0.0	14.3	0.0		
60	0.0	0.1	0.2	0.3	0.5	0.7	0.8	1.0	1.0	1.0	0.9	0.8	0.6	0.5	0.3	0.2	0.1	0.0	0.0	9.2	0.0		
70	0.0	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.5	0.4	0.3	0.2	0.2	0.1	0.0	0.0	5.9	0.0		
80	0.0	0.1	0.1	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.0	0.0	4.1	0.0		
90	0.6	2.3	5.6	11.2	21.1	40.7	75.0	133.8	279.3	3274.9	131.6	73.3	39.7	20.6	11.0	5.5	2.3	0.6	0.0	1129			
Flux(E)	0.0	0.0	0.0	0.0	0.0	0.0	6.3	80.6	231.0	227.0	78.0	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	629		
Horizontal plane																							

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	9.6	10.6	10.1	11.1	11.5	7.4	8.4	7.8	8.8	9.3
3H	11.0	11.9	11.5	12.4	12.9	8.4	9.3	8.9	9.8	10.3
4H	11.5	12.4	12.0	12.9	13.4	8.8	9.7	9.3	10.1	10.7
6H	12.0	12.8	12.5	13.3	13.8	9.1	9.9	9.6	10.4	10.9
8H	12.2	13.0	12.8	13.5	14.1	9.2	9.9	9.7	10.4	11.0
12H	12.5	13.2	13.0	13.7	14.3	9.3	10.0	9.8	10.5	11.1
X=4H Y=2H	9.7	10.6	10.2	11.0	11.6	7.8	8.7	8.3	9.1	9.7
3H	11.2	11.9	11.7	12.5	13.0	9.0	9.8	9.6	10.3	10.8
4H	11.9	12.5	12.4	13.0	13.6	9.5	10.2	10.1	10.7	11.3
6H	12.5	13.0	13.0	13.6	14.2	9.9	10.5	10.5	11.0	11.6
8H	12.8	13.3	13.3	13.8	14.4	10.0	10.6	10.6	11.1	11.7
12H	13.1	13.5	13.7	14.1	14.7	10.2	10.7	10.8	11.2	11.9
X=8H Y=4H	11.9	12.4	12.5	13.0	13.6	9.7	10.3	10.3	10.8	11.4
6H	12.6	13.0	13.2	13.6	14.2	10.2	10.7	10.8	11.3	11.9
8H	12.9	13.3	13.6	13.9	14.6	10.5	10.8	11.1	11.5	12.1
12H	13.4	13.7	14.0	14.3	15.0	10.7	11.0	11.3	11.6	12.4
X=12H Y=4H	11.8	12.3	12.4	12.9	13.5	9.7	10.2	10.3	10.8	11.4
6H	12.6	12.9	13.2	13.5	14.2	10.3	10.7	10.9	11.2	11.9
8H	13.0	13.3	13.6	13.9	14.6	10.6	10.9	11.2	11.5	12.2

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 = 0.50								
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	0.81	0.88	0.93	0.97	1.02	1.05	1.07	1.10	1.12
	0.30		0.76	0.83	0.88	0.92	0.97	1.01	1.03	1.07	1.09
	0.20		0.72	0.79	0.84	0.88	0.94	0.98	1.01	1.04	1.07
0.50	0.50	0.20	0.79	0.86	0.90	0.93	0.98	1.00	1.02	1.05	1.06
	0.30		0.75	0.81	0.86	0.89	0.94	0.97	0.99	1.02	1.04
	0.20		0.71	0.78	0.83	0.86	0.91	0.95	0.97	1.00	1.03
0.30	0.50	0.20	0.77	0.83	0.87	0.90	0.94	0.96	0.98	1.00	1.01
	0.30		0.73	0.80	0.84	0.87	0.91	0.94	0.96	0.98	1.00
	0.20		0.70	0.77	0.81	0.84	0.89	0.92	0.94	0.97	0.98
0.00	0.00	0.00	0.68	0.74	0.78	0.80	0.84	0.87	0.89	0.91	0.92
<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 = 0.50								
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	0.68	0.56	0.48	0.41	0.33	0.27	0.24	0.18	0.15
	0.30		0.57	0.48	0.42	0.37	0.30	0.25	0.22	0.17	0.14
	0.20		0.49	0.42	0.37	0.33	0.27	0.23	0.20	0.16	0.14
0.50	0.50	0.20	0.64	0.52	0.44	0.38	0.30	0.29	0.21	0.17	0.14
	0.30		0.54	0.45	0.39	0.34	0.28	0.23	0.20	0.16	0.13
	0.20		0.47	0.40	0.35	0.31	0.25	0.22	0.19	0.15	0.13
0.30	0.50	0.20	0.60	0.49	0.41	0.35	0.28	0.23	0.20	0.15	0.12
	0.30		0.52	0.43	0.37	0.32	0.26	0.22	0.18	0.15	0.12
	0.20		0.45	0.38	0.33	0.29	0.24	0.20	0.17	0.14	0.11
0.00	0.00	0.00	0.31	0.25	0.21	0.19	0.15	0.12	0.10	0.08	0.07
<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(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	0.20	0.22	0.23	0.24	0.25	0.26	0.27	0.27	0.28
	0.30		0.15	0.17	0.19	0.20	0.22	0.23	0.24	0.25	0.26
	0.20		0.12	0.14	0.16	0.17	0.19	0.21	0.22	0.23	0.25
0.50	0.50	0.20	0.19	0.21	0.22	0.23	0.24	0.25	0.26	0.26	0.27
	0.30		0.15	0.17	0.18	0.20	0.21	0.22	0.23	0.24	0.25
	0.20		0.12	0.14	0.15	0.17	0.19	0.20	0.21	0.23	0.24
0.30	0.50	0.20	0.19	0.20	0.21	0.22	0.23	0.24	0.25	0.25	0.26
	0.30		0.15	0.17	0.18	0.19	0.21	0.22	0.23	0.24	0.24
	0.20		0.12	0.14	0.15	0.16	0.18	0.20	0.21	0.22	0.23
0.00	0.00	0.00	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Rating: 23W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											