

Report No.:

Test Time: 06.05.2020 19:09

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FL 58 L 200LED 55W Refond 3N 3000K 20x90 rp

Number of Lamps: 1

Lumens per Lamp: 7528.4 lm

Luminous Length (mm): 75 mm

Luminous Width (mm): 1500 mm

Luminous Height (mm): 60 mm

Voltage: 228.7 V

Current: 0.229 A

Power: 51.47 W

Power Factor: 0.984

Photometric Results

CIE Class: Direct

Total Rated Lamp Lumens: 7528.4 lm

Measurement Flux: 7528.3 lm

Efficiency: 100.00%

Downward Ratio: 99.47%

Upward Ratio: 0.53%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 150.3, 141.0, 134.9, 135.4

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 79.3, 48.7, 60.9, 61.6

Luminaire Efficacy Rating (LER): 146.32

Central Intensity: 2903.93 cd

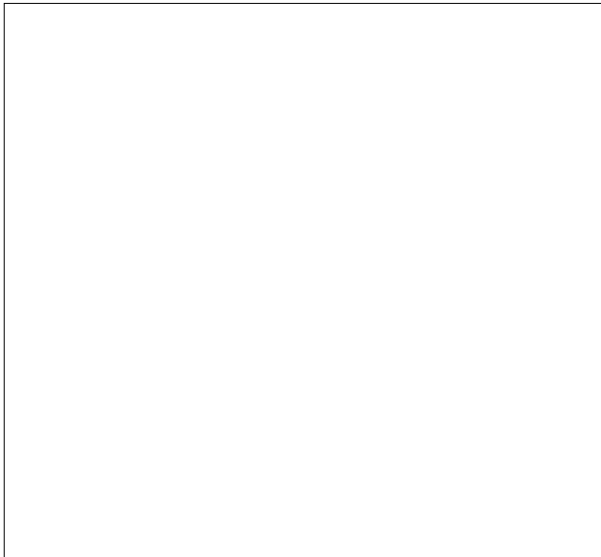
Max. Intensity: 5025.86 cd

Pos of Max. Intensity: H270 V22

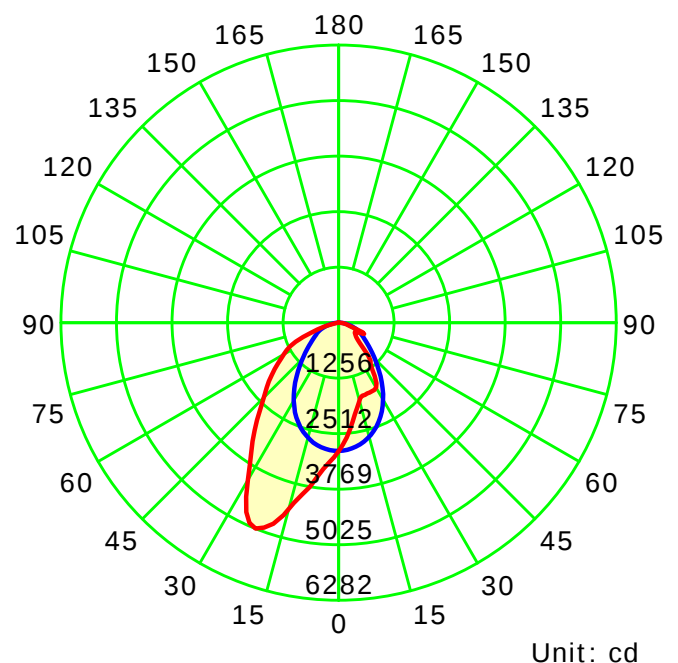
S/MH(C0/C180): 1.07

S/MH(C90/C270): 1.34

Picture Of Luminaire



Luminous Intensity Distribution Curve



— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 22.5

Gamma Plane (°):0.0-180.0:2.0

Test Lab:

Test Device: LSG-1800B

Test Type: TYPE C

Distance: 12.677 m

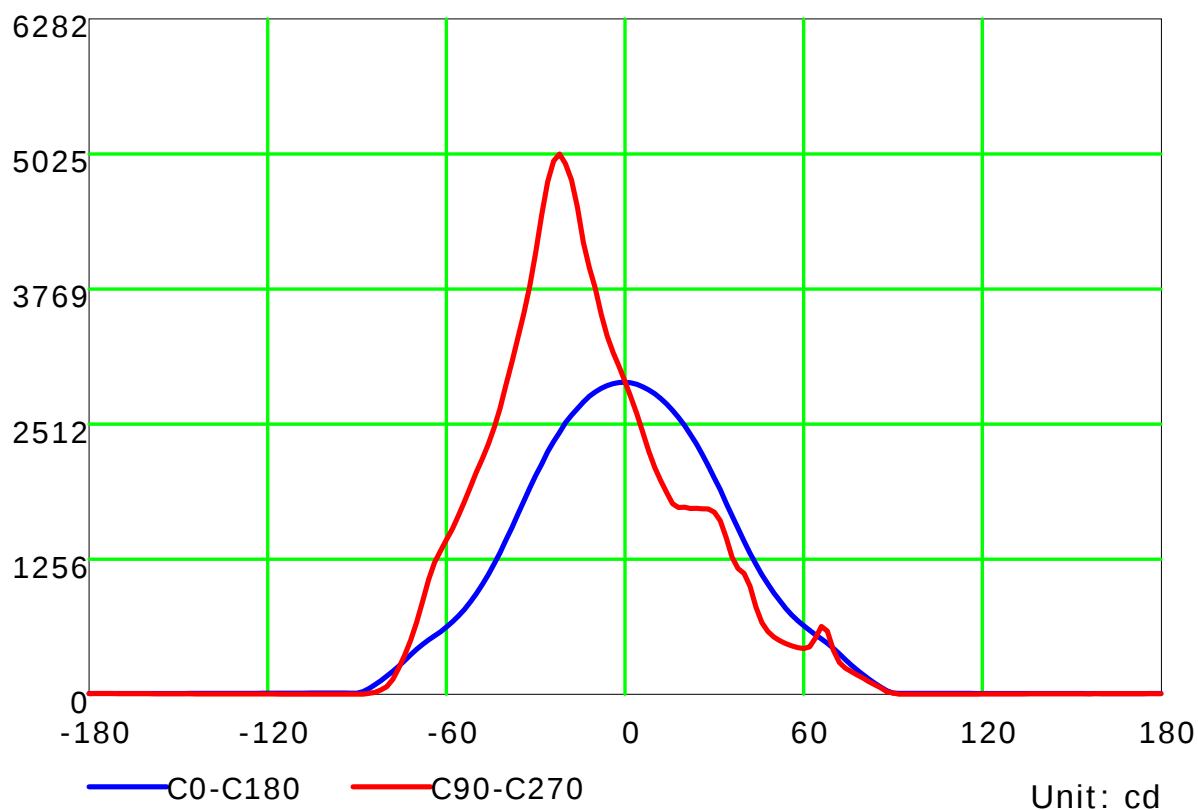
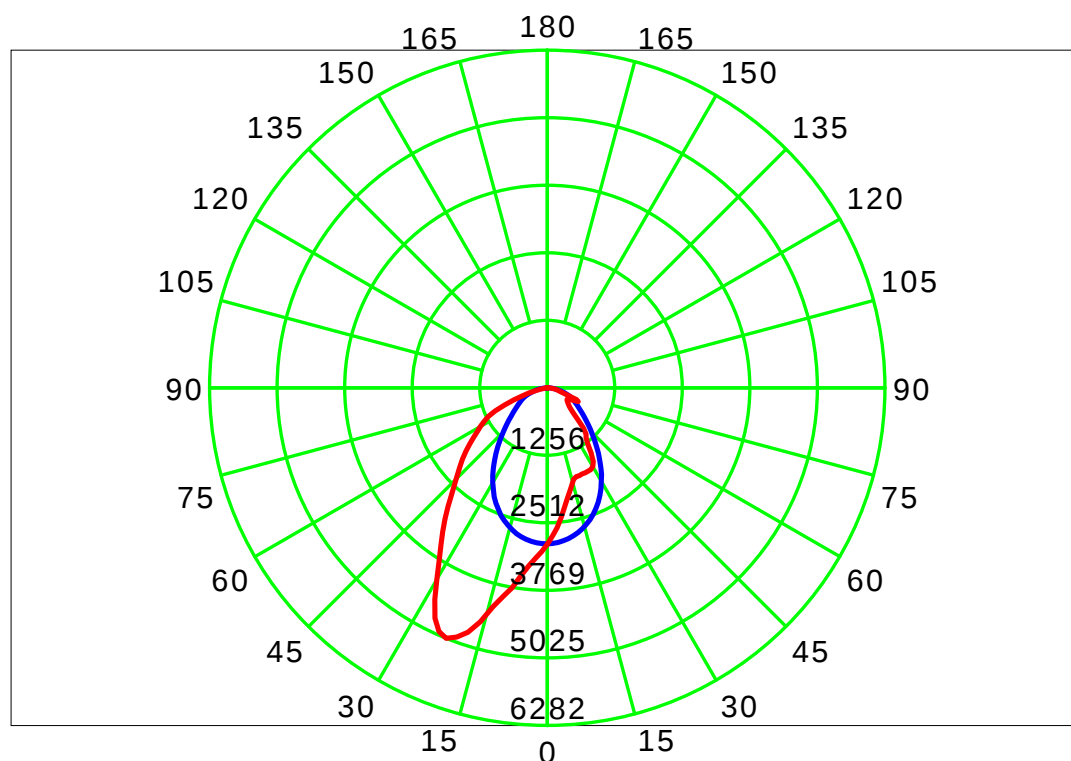
Temperature:

Humidity:

Operator:

Inspector:

Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.0

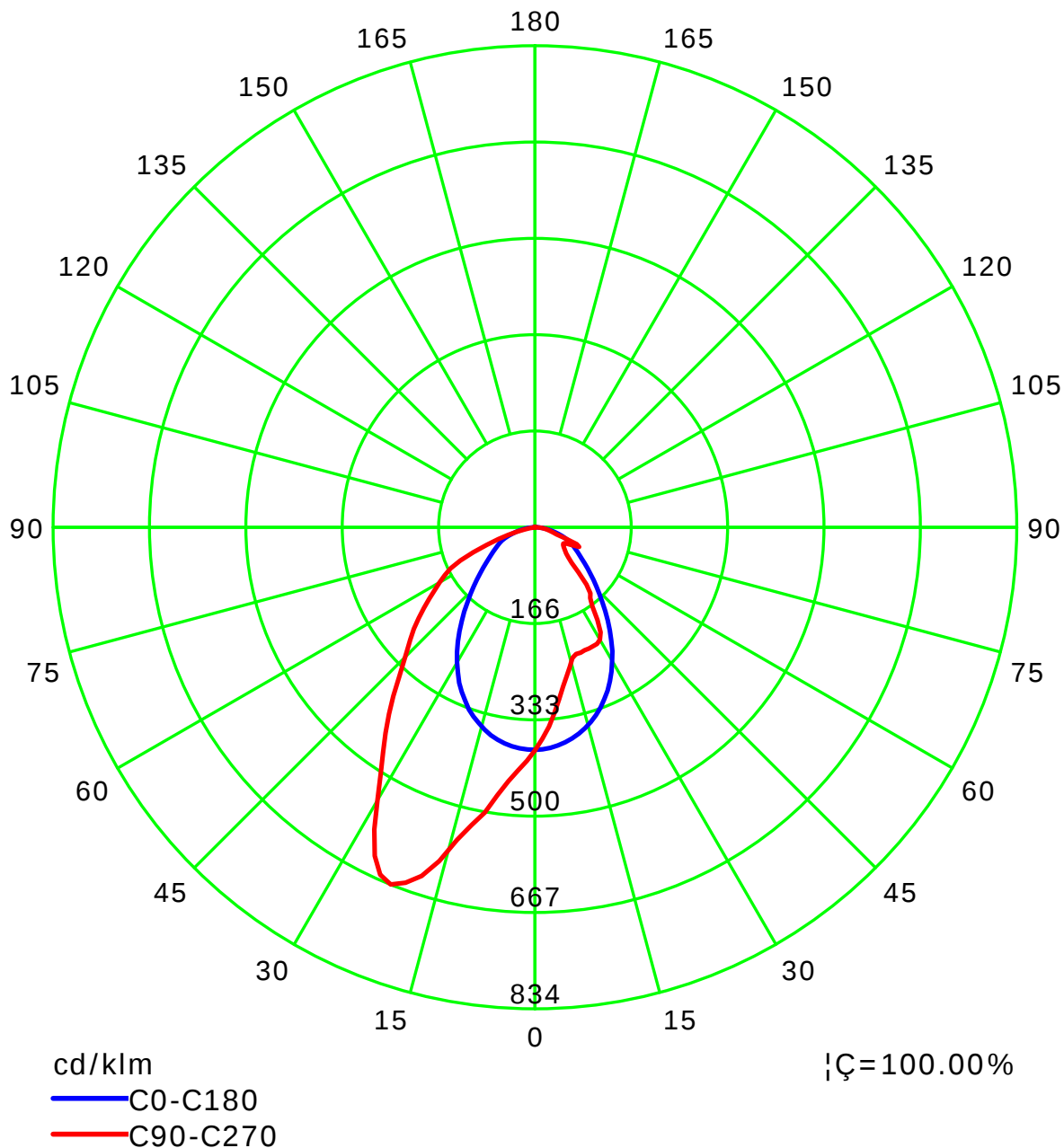
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Luminous Intensity Distribution Curve(cd / klm)



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

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Test Device: LSG-1800B

Distance: 12.677 m

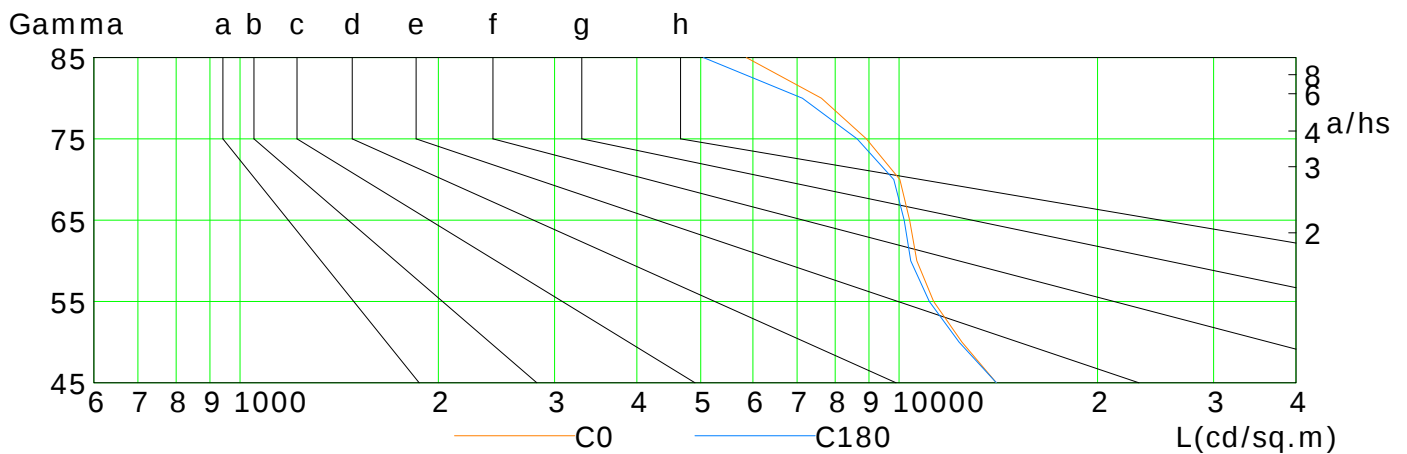
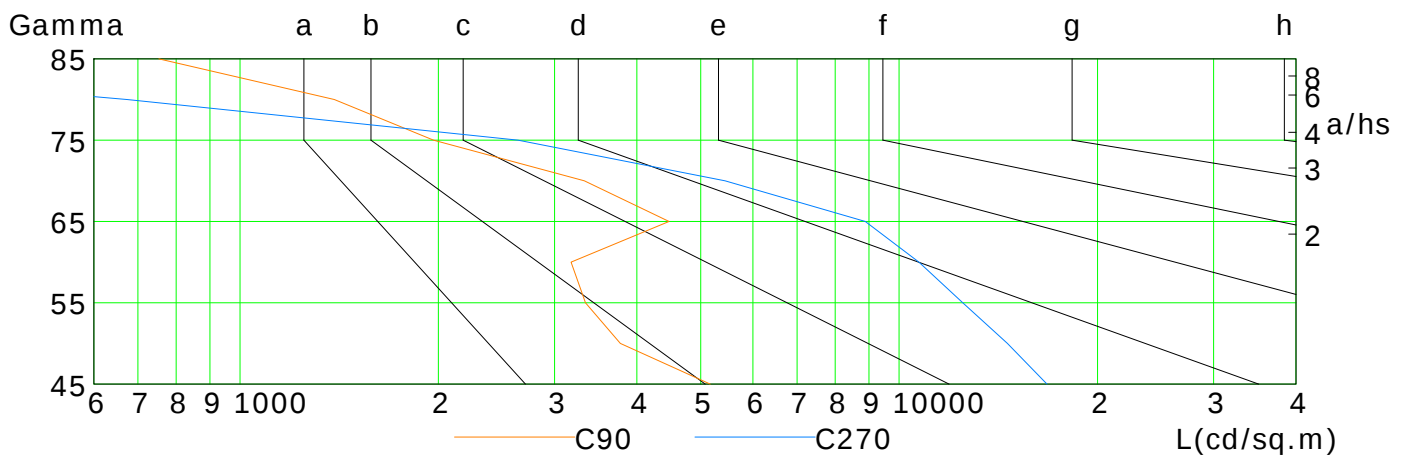
Humidity:

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	14044	12452	11280	10638	10374	10025	8921	7620	5863
C90	5168	3775	3342	3179	4476	3330	1966	1390	753
C180	14044	12332	11112	10415	10180	9814	8633	7130	5048
C270	16761	14596	12488	10712	8882	5443	2642	674	140

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.0

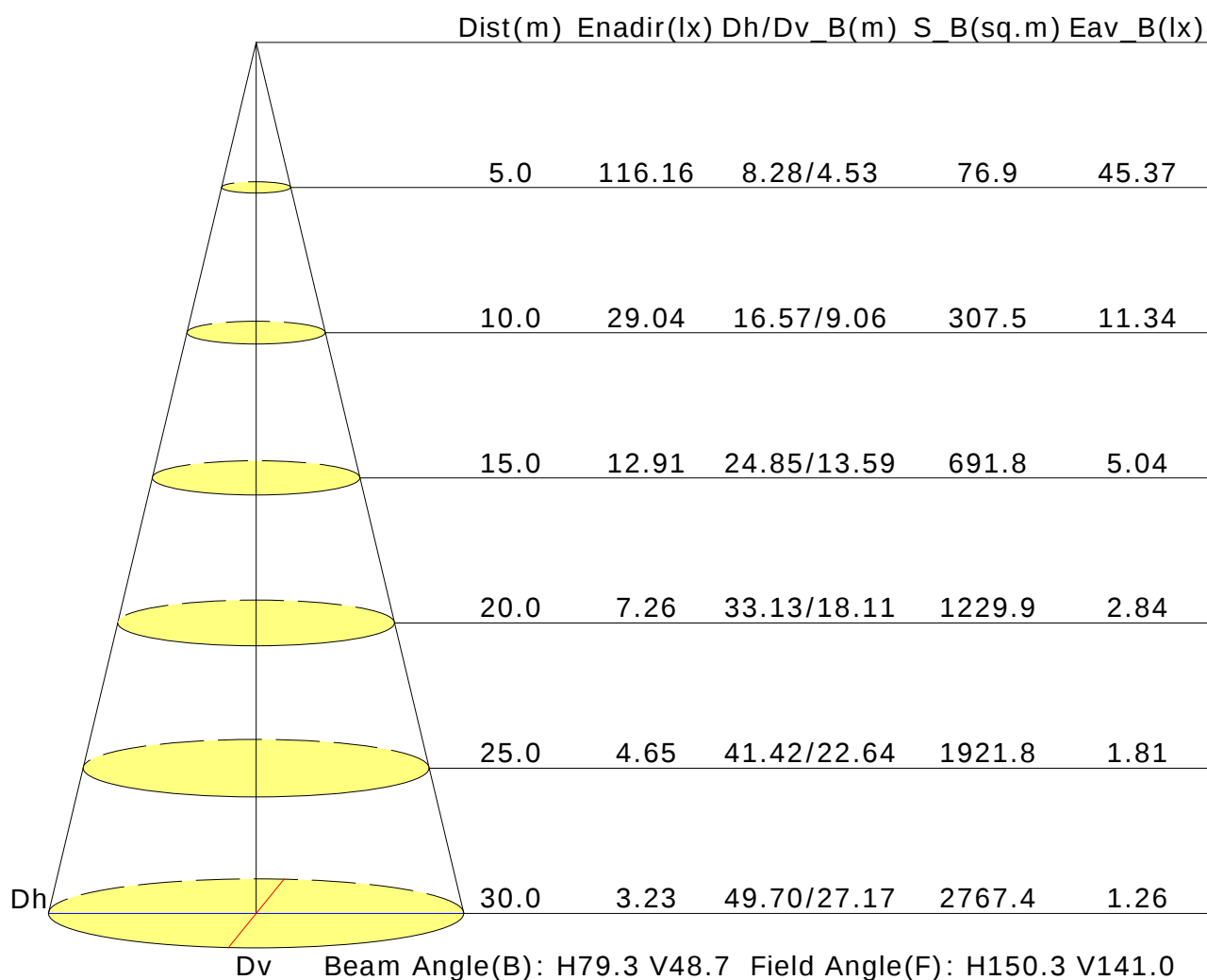
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Illuminance at a Distance



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	21.4	22.7	21.7	22.9	23.2	20.7	22.0	21.0	22.2	22.5
3H	22.3	23.5	22.6	23.7	24.0	21.6	22.8	21.9	23.1	23.3
4H	22.6	23.7	23.0	24.0	24.3	21.7	22.8	22.1	23.1	23.4
6H	22.9	23.9	23.2	24.2	24.5	21.7	22.7	22.1	23.0	23.4
8H	22.9	23.9	23.3	24.2	24.6	21.7	22.7	22.1	23.0	23.3
12H	23.0	23.9	23.4	24.3	24.6	21.6	22.6	22.0	22.9	23.3
X=4H Y=2H	21.8	22.9	22.1	23.2	23.5	21.2	22.3	21.6	22.6	22.9
3H	22.8	23.8	23.2	24.1	24.5	22.3	23.2	22.6	23.5	23.9
4H	23.3	24.1	23.7	24.5	24.9	22.4	23.3	22.8	23.6	24.0
6H	23.6	24.4	24.0	24.7	25.2	22.5	23.2	22.9	23.6	24.0
8H	23.7	24.4	24.2	24.8	25.2	22.4	23.1	22.9	23.5	24.0
12H	23.8	24.4	24.2	24.8	25.3	22.4	23.0	22.9	23.5	23.9
X=8H Y=4H	23.4	24.1	23.8	24.5	24.9	22.6	23.3	23.0	23.7	24.1
6H	23.8	24.3	24.3	24.8	25.3	22.6	23.2	23.1	23.6	24.1
8H	23.9	24.4	24.4	24.9	25.4	22.6	23.1	23.1	23.6	24.1
12H	24.0	24.5	24.5	24.9	25.5	22.6	23.1	23.1	23.5	24.0
X=12H Y=4H	23.4	24.0	23.8	24.4	24.9	22.6	23.2	23.0	23.6	24.1
6H	23.8	24.3	24.3	24.7	25.2	22.7	23.1	23.1	23.6	24.1
8H	23.9	24.4	24.4	24.8	25.3	22.7	23.1	23.2	23.6	24.1
Variations with the observer position at spacings:										
S=1.0H	+0.4/-0.5					+0.4/-0.6				
S=1.5H	+0.7/-0.9					+0.8/-1.4				
S=2.0H	+0.7/-1.1					+1.2/-2.1				

Calculate in accordance with CIE Pub.117. The table is revised with 7528lm ($8\log(F/F_0) = 7.0$).

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.0

Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Utilisation Factor Table(Floor cavity)

Utilisation Factors UF(F)			SHR NOM = 1.25									
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	0.62	0.72	0.79	0.84	0.90	0.95	0.98	1.02	1.05	
	0.30		0.54	0.65	0.72	0.77	0.85	0.90	0.94	0.98	1.02	
	0.20		0.49	0.59	0.67	0.72	0.80	0.86	0.90	0.95	0.99	
0.50	0.50	0.20	0.60	0.70	0.76	0.81	0.87	0.91	0.94	0.98	1.01	
	0.30		0.54	0.63	0.70	0.75	0.82	0.87	0.91	0.95	0.98	
	0.20		0.49	0.59	0.66	0.71	0.78	0.84	0.87	0.92	0.96	
0.30	0.50	0.20	0.59	0.68	0.74	0.78	0.84	0.88	0.91	0.94	0.97	
	0.30		0.53	0.62	0.69	0.74	0.80	0.85	0.88	0.92	0.95	
	0.20		0.48	0.58	0.65	0.70	0.77	0.82	0.85	0.90	0.93	
0.00	0.00	0.00	0.46	0.56	0.62	0.67	0.74	0.78	0.81	0.85	0.88	
Rating:51W 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 = 1.25									
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	0.92	0.75	0.63	0.55	0.44	0.36	0.31	0.24	0.19	
	0.30		0.77	0.64	0.55	0.49	0.39	0.33	0.28	0.22	0.18	
	0.20		0.66	0.56	0.49	0.44	0.36	0.30	0.26	0.21	0.17	
0.50	0.50	0.20	0.88	0.72	0.61	0.52	0.41	0.38	0.29	0.22	0.18	
	0.30		0.75	0.62	0.54	0.47	0.38	0.32	0.27	0.21	0.17	
	0.20		0.65	0.55	0.48	0.43	0.35	0.29	0.26	0.20	0.17	
0.30	0.50	0.20	0.86	0.69	0.58	0.50	0.39	0.32	0.28	0.21	0.17	
	0.30		0.73	0.61	0.52	0.45	0.36	0.30	0.26	0.20	0.17	
	0.20		0.64	0.54	0.47	0.42	0.34	0.28	0.25	0.19	0.16	
0.00	0.00	0.00	0.53	0.44	0.37	0.33	0.26	0.22	0.18	0.14	0.12	
Rating:51W 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 = 1.25									
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	0.21	0.22	0.22	
	0.30		0.10	0.11	0.13	0.14	0.16	0.17	0.18	0.19	0.20	
	0.20		0.05	0.07	0.09	0.10	0.12	0.14	0.15	0.16	0.18	
0.50	0.50	0.20	0.16	0.17	0.18	0.18	0.19	0.20	0.20	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	0.12	0.13	0.14	0.16	0.17	
0.30	0.50	0.20	0.15	0.16	0.17	0.18	0.18	0.19	0.19	0.20	0.20	
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.18	
	0.20		0.05	0.07	0.08	0.10	0.11	0.13	0.14	0.16	0.17	
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:51W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												