

Report No.: 1

Test Time: 07.11.2019 18:38

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FG 180 4x18LED 0,35A 20W 3000K opal

Luminous Length (mm): 1200

Luminous Width (mm): 180

Luminous Height (mm): 35

Voltage: 222.1 V

Current: 0.100 A

Power: 21.67 W

Power Factor: 0.973

Photometric Results

CIE Class: Direct

Measurement Flux: 1989.3 lm

Downward Ratio: 99%

Total Rated Lamp Lumens: 1989.3 lm

Efficiency: 100%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 165.3, 164.5, 164.7, 164.7

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 114.0, 113.6, 113.8, 113.8

Luminaire Efficacy Rating (LER): 91.85

Central Intensity: 672.96 cd

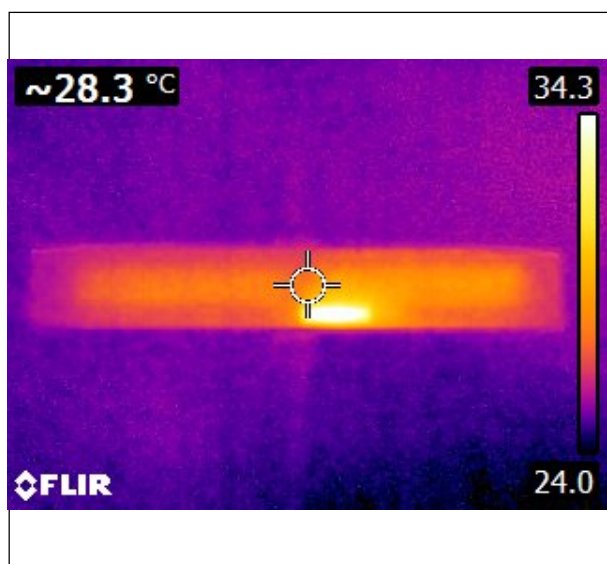
Max. Intensity: 673.42 cd

Pos of Max. Intensity: H157.5 V1

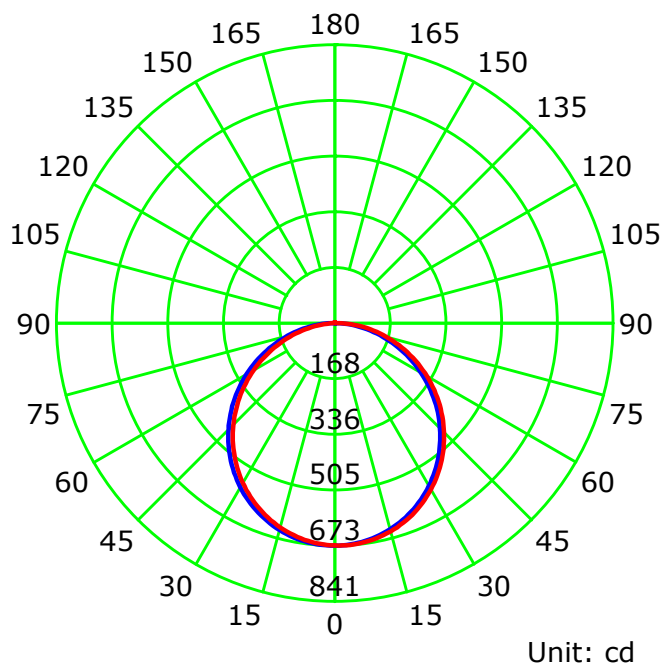
S/MH(C0/C180): 1.26

S/MH(C90/C270): 1.26

Termogramma



Luminous Intensity Distribution Curve



— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

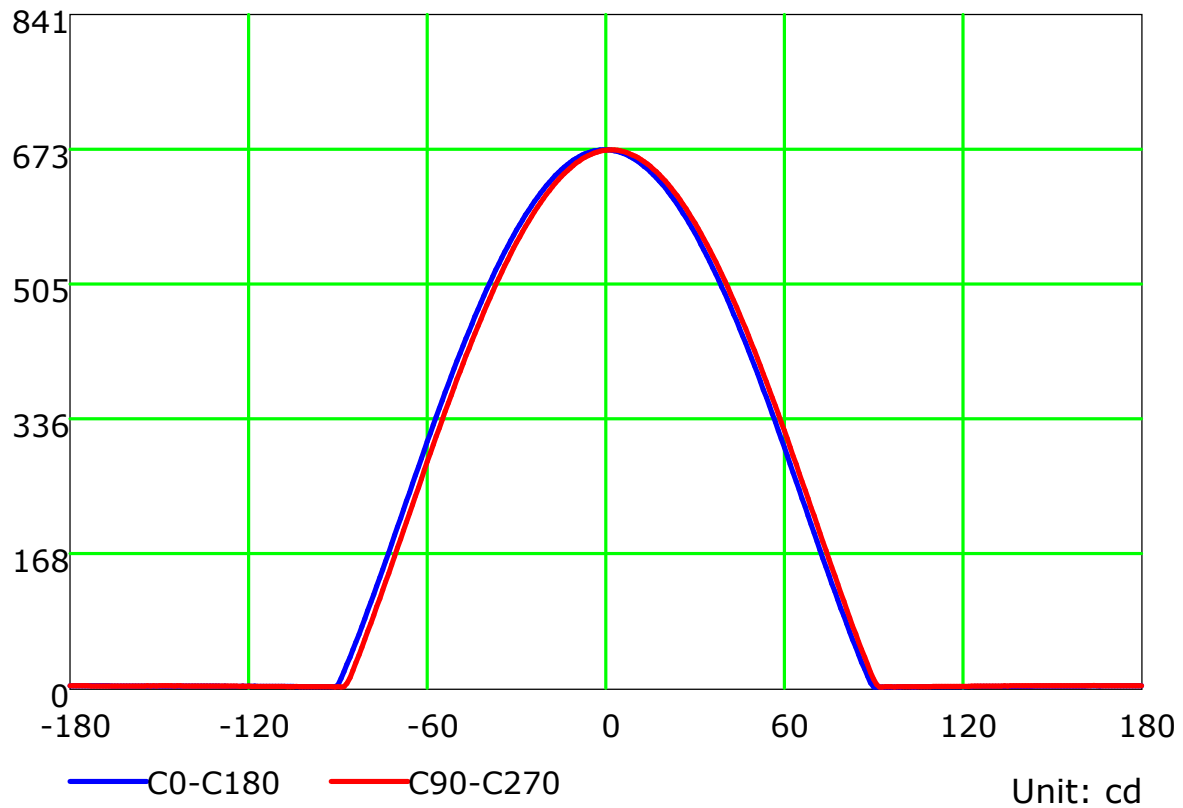
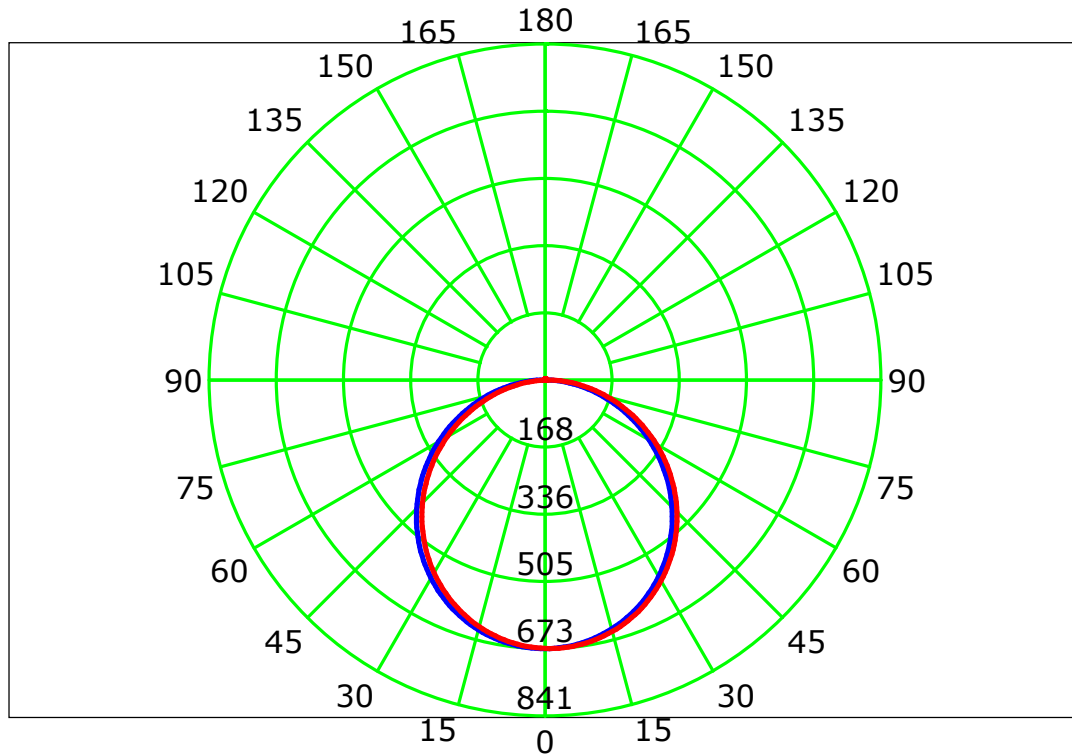
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

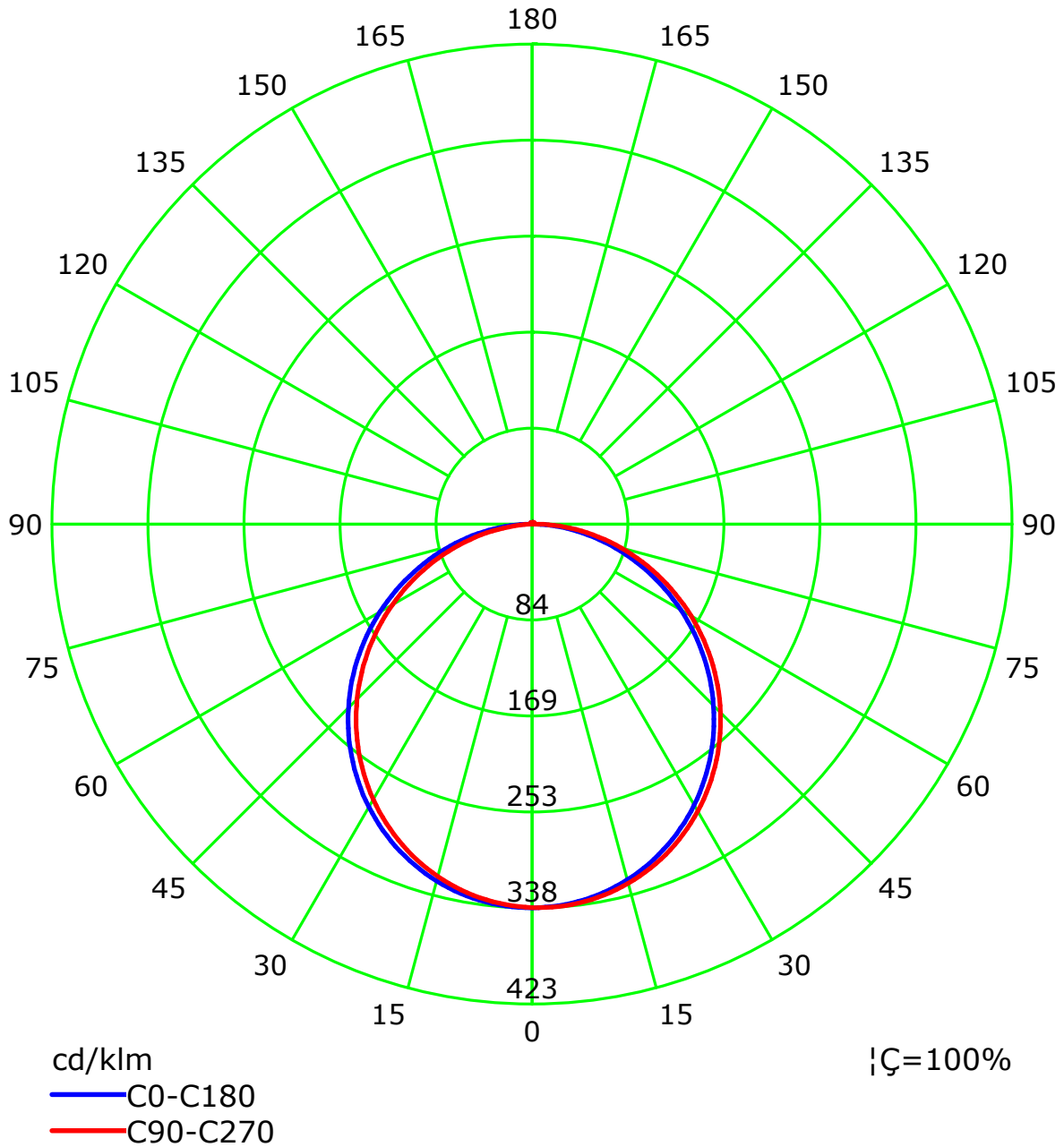
Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-180.0:1.0
Test Device: LSG-1800B
Distance: 12.677 m
Humidity:
Inspector:

Luminous Intensity Distribution Curve(cd/klm)

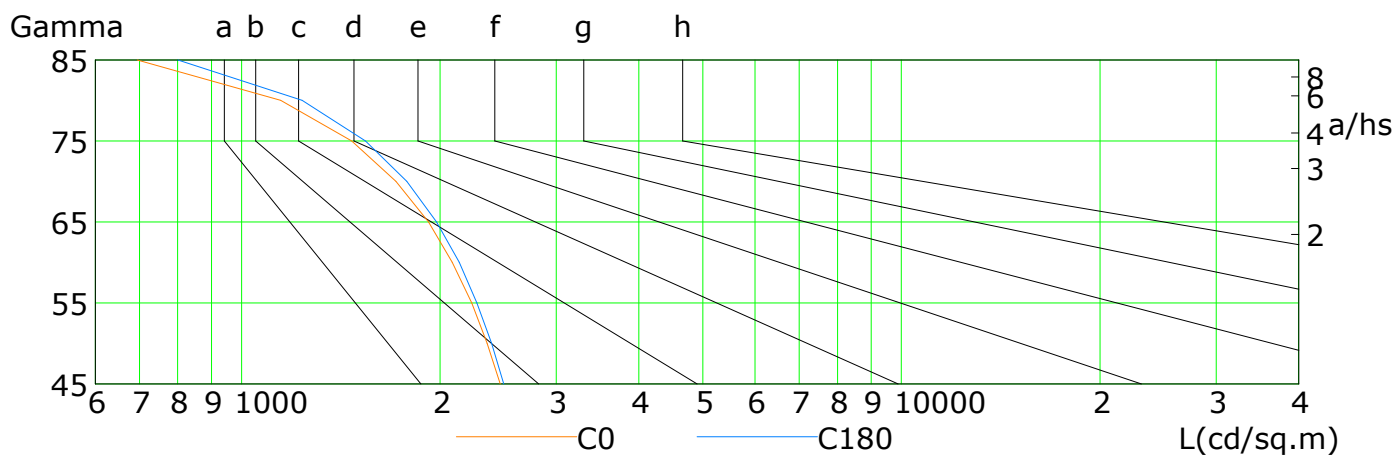
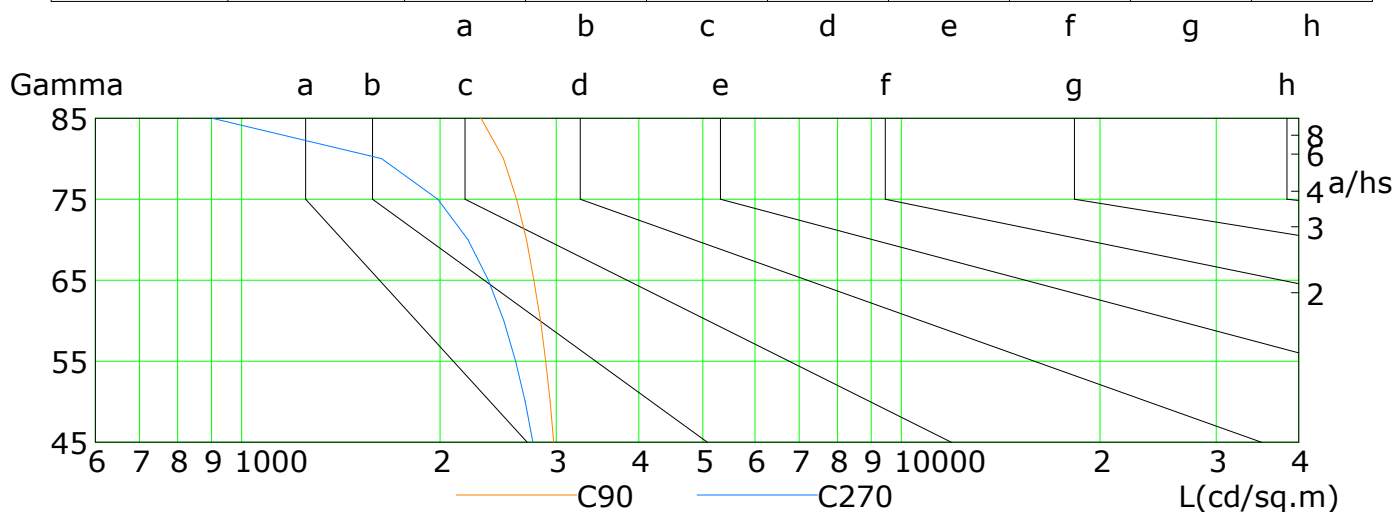


C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-180.0:1.0
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

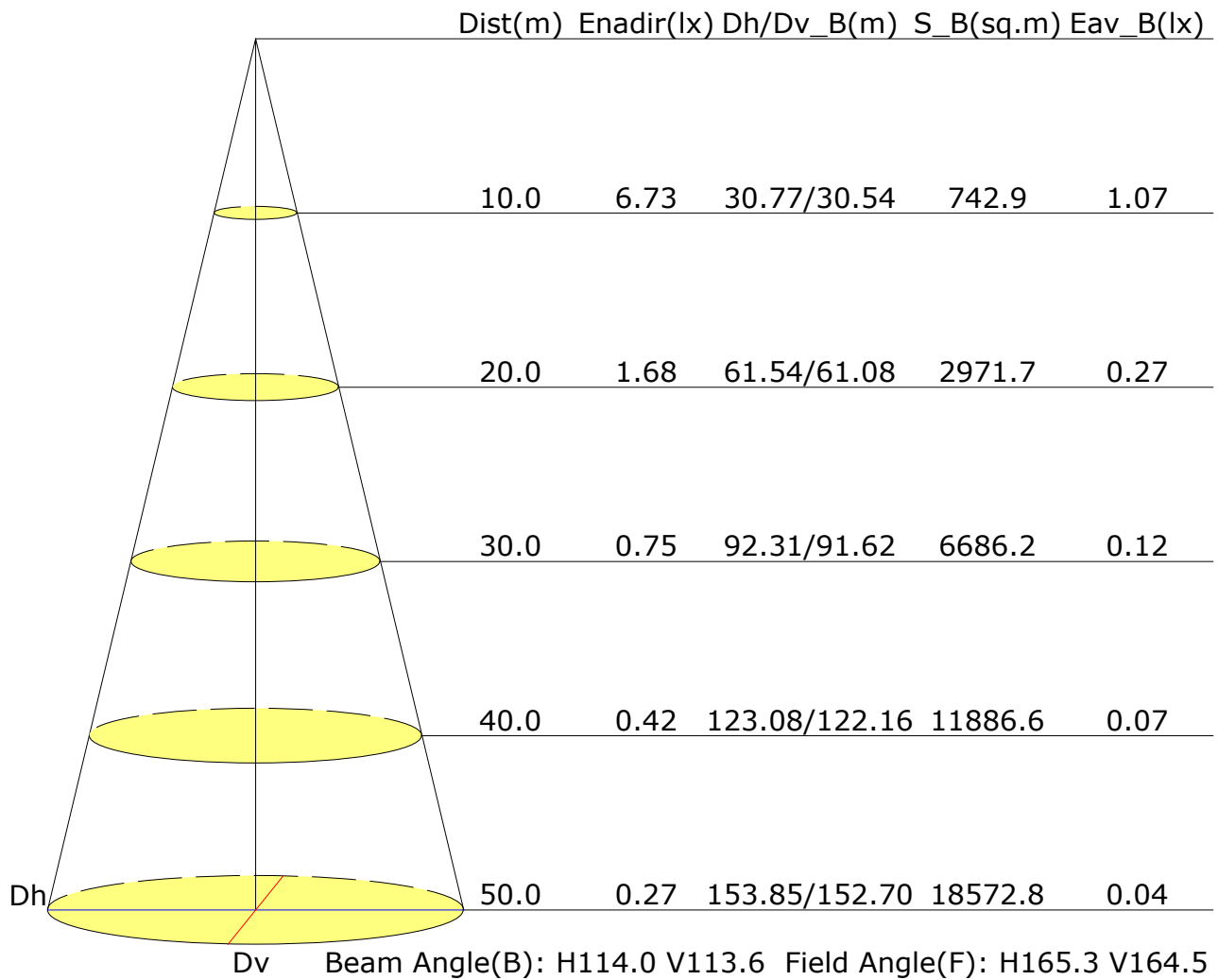


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	2466	2356	2234	2087	1920	1714	1468	1147	695
C90	2973	2936	2890	2839	2774	2703	2610	2495	2307
C180	2497	2393	2273	2137	1976	1779	1541	1235	801
C270	2763	2690	2603	2496	2366	2203	1984	1630	902

C Plane (°):0.0-360.0: 22.5
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 Temperature:
 Operator:

Gamma Plane (°):0.0-180.0:1.0
 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	15.3	16.7	15.6	17.0	17.2	15.8	17.2	16.1	17.4	17.7
3H	16.8	18.0	17.1	18.3	18.6	17.4	18.7	17.7	19.0	19.3
4H	17.3	18.5	17.7	18.8	19.1	18.1	19.3	18.4	19.6	19.9
6H	17.7	18.8	18.1	19.2	19.5	18.6	19.7	19.0	20.0	20.4
8H	17.8	18.9	18.2	19.2	19.6	18.8	19.9	19.2	20.2	20.6
12H	17.9	18.9	18.3	19.3	19.6	18.9	19.9	19.3	20.3	20.6
X=4H Y=2H	16.0	17.2	16.4	17.5	17.8	16.4	17.6	16.7	17.9	18.2
3H	17.6	18.7	18.0	19.0	19.4	18.1	19.2	18.5	19.5	19.9
4H	18.3	19.2	18.7	19.6	20.0	18.9	19.9	19.4	20.3	20.6
6H	18.8	19.6	19.2	20.0	20.4	19.6	20.4	20.0	20.8	21.2
8H	18.9	19.7	19.4	20.1	20.6	19.8	20.6	20.3	21.0	21.4
12H	19.0	19.7	19.5	20.2	20.6	20.0	20.7	20.5	21.1	21.6
X=8H Y=4H	18.6	19.3	19.0	19.8	20.2	19.2	19.9	19.6	20.4	20.8
6H	19.2	19.8	19.7	20.3	20.8	19.9	20.6	20.4	21.0	21.5
8H	19.4	20.0	19.9	20.5	21.0	20.2	20.8	20.7	21.3	21.8
12H	19.6	20.1	20.1	20.5	21.1	20.5	21.0	21.0	21.4	22.0
X=12H Y=4H	18.6	19.3	19.1	19.7	20.2	19.2	19.9	19.6	20.3	20.8
6H	19.3	19.8	19.8	20.3	20.8	20.0	20.5	20.5	21.0	21.5
8H	19.5	20.0	20.0	20.5	21.0	20.3	20.8	20.8	21.3	21.8
Variations with the observer position at spacings:										
S=1.0H	+0.2/-0.2					+0.2/-0.2				
S=1.5H	+0.3/-0.5					+0.4/-0.5				
S=2.0H	+0.5/-0.9					+0.5/-0.9				

Calculate in accordance with CIE Pub.117. The table is revised with 1989Im ($8\log(F/F_0) = 2.4$).

C Plane (°):0.0-360.0: 22.5
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Gamma Plane (°):0.0-180.0:1.0
 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	0.55	0.66	0.73	0.79	0.86	0.91	0.95	0.99	1.02	
	0.30		0.47	0.58	0.66	0.71	0.80	0.85	0.89	0.95	0.99	
	0.20		0.42	0.52	0.60	0.66	0.74	0.80	0.85	0.91	0.95	
0.50	0.50	0.20	0.54	0.64	0.71	0.76	0.83	0.87	0.91	0.95	0.98	
	0.30		0.47	0.57	0.64	0.69	0.77	0.83	0.86	0.92	0.95	
	0.20		0.41	0.51	0.59	0.64	0.73	0.78	0.83	0.88	0.92	
0.30	0.50	0.20	0.52	0.62	0.68	0.73	0.80	0.84	0.87	0.91	0.94	
	0.30		0.46	0.56	0.62	0.68	0.75	0.80	0.84	0.88	0.92	
	0.20		0.41	0.51	0.58	0.63	0.71	0.76	0.80	0.86	0.89	
0.00	0.00	0.00	0.39	0.48	0.55	0.60	0.67	0.73	0.76	0.81	0.84	
Rating:22W 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	1.01	0.84	0.72	0.63	0.50	0.42	0.36	0.28	0.23	
	0.30		0.85	0.72	0.63	0.56	0.46	0.38	0.33	0.26	0.22	
	0.20		0.73	0.63	0.56	0.50	0.41	0.35	0.31	0.25	0.21	
0.50	0.50	0.20	0.98	0.81	0.69	0.60	0.48	0.43	0.34	0.27	0.22	
	0.30		0.83	0.70	0.61	0.54	0.44	0.37	0.32	0.25	0.21	
	0.20		0.72	0.62	0.54	0.49	0.40	0.34	0.30	0.24	0.20	
0.30	0.50	0.20	0.95	0.78	0.66	0.58	0.46	0.38	0.33	0.25	0.21	
	0.30		0.81	0.68	0.59	0.52	0.42	0.36	0.31	0.24	0.20	
	0.20		0.71	0.61	0.54	0.48	0.39	0.33	0.29	0.23	0.19	
0.00	0.00	0.00	0.61	0.51	0.44	0.39	0.32	0.27	0.23	0.18	0.15	
Rating:22W 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	0.17	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	0.15	0.16	0.17	
0.50	0.50	0.20	0.17	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	0.17	0.17	0.19	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	0.16	0.17	0.18	0.19	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	0.09	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:22W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												