

Report No.: 1

Test Time: 05.11.2019 19:42

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FG 180 4x40LED 0.3A 38W 3000K opal

Luminous Length (mm): 1200

Luminous Width (mm): 180

Luminous Height (mm): 35

Voltage: 221.4 V

Current: 0.178 A

Power: 38.91 W

Power Factor: 0.982

Photometric Results

CIE Class: Direct

Measurement Flux: 3629.3 lm

Downward Ratio: 99%

Total Rated Lamp Lumens: 3629.3 lm

Efficiency: 100%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 165.4, 165.3, 165.4, 165.3

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 114.0, 113.7, 113.9, 113.9

Luminaire Efficacy Rating (LER): 93.32

Central Intensity: 1223.39 cd

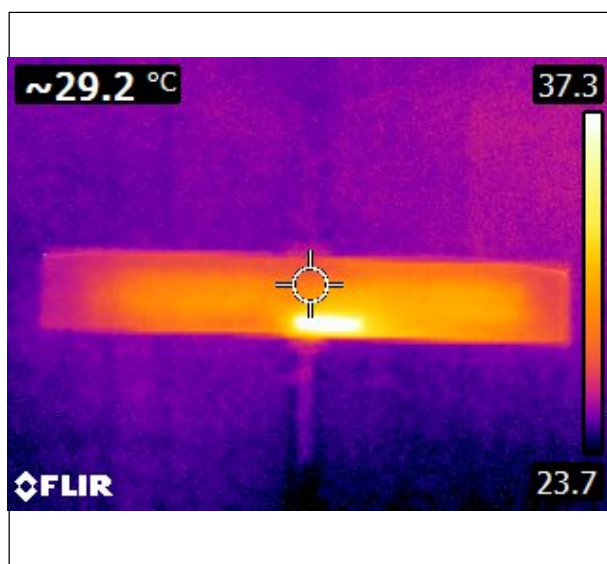
Max. Intensity: 1224.54 cd

Pos of Max. Intensity: H180 V1

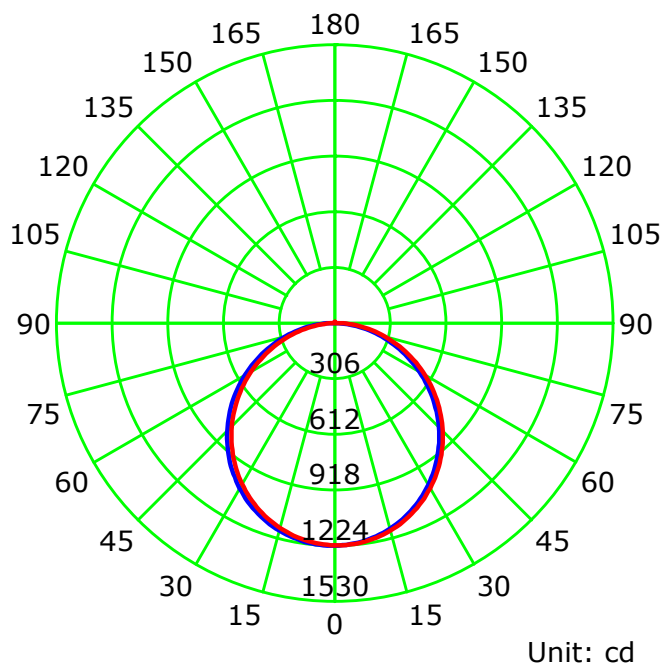
S/MH(C0/C180): 1.26

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

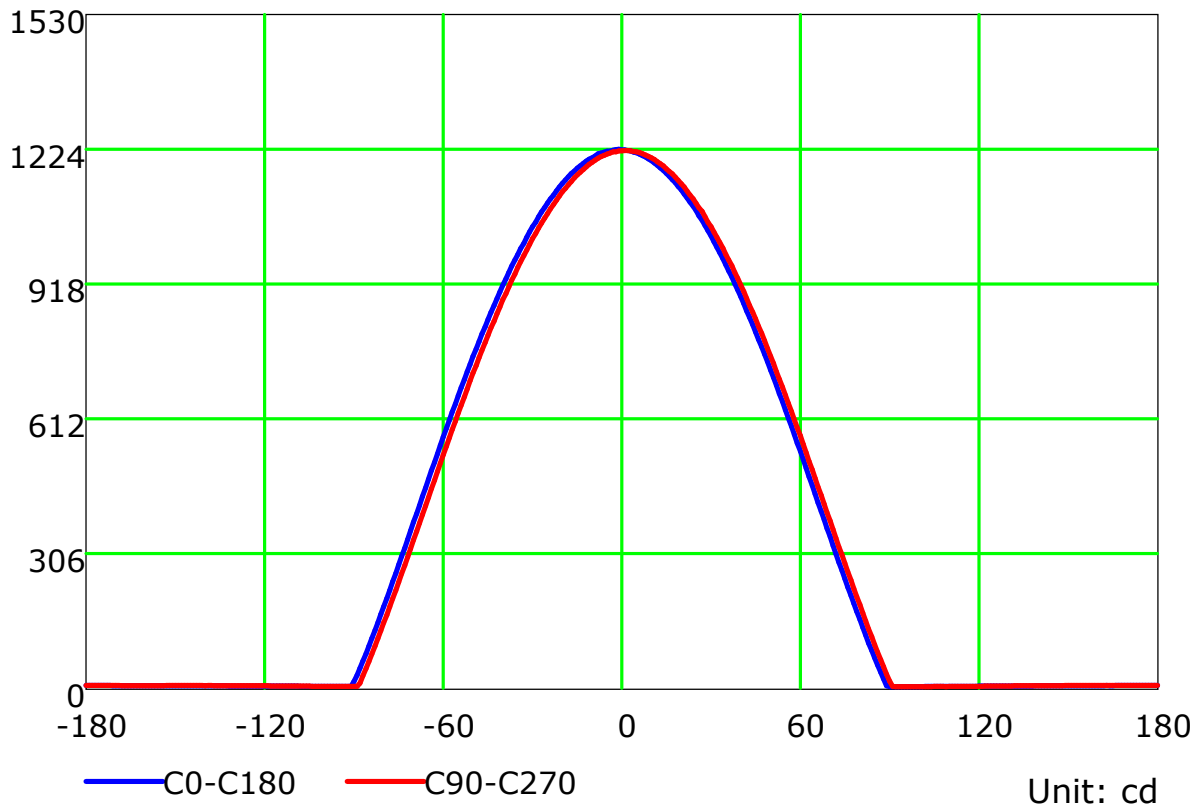
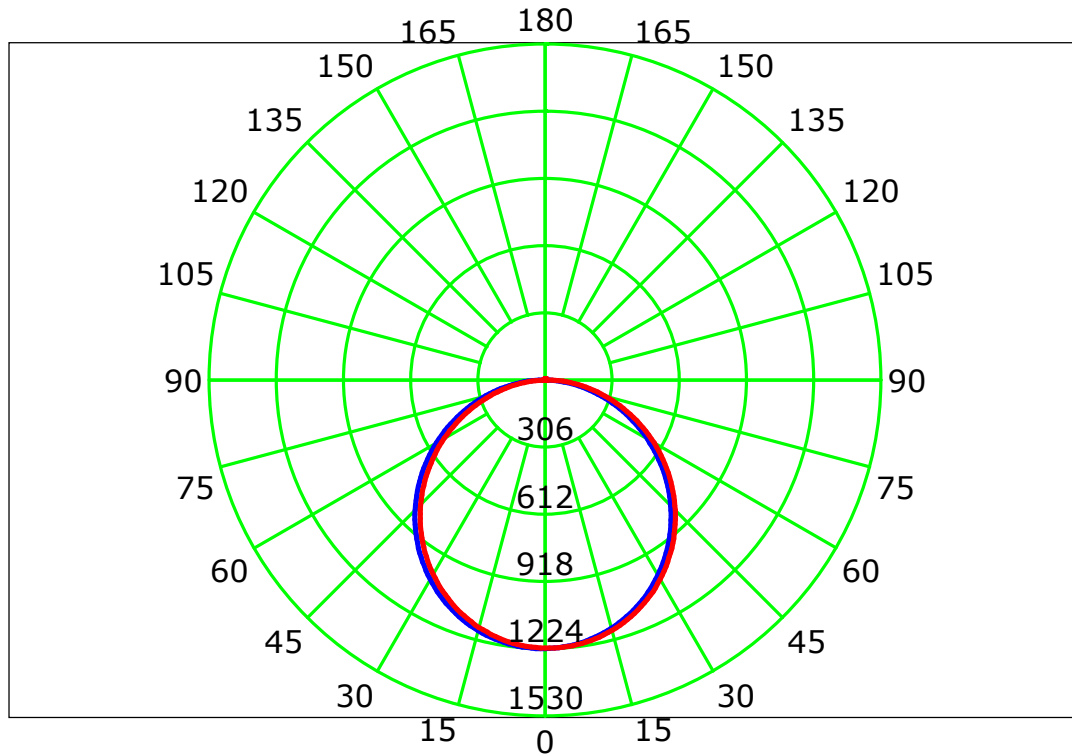
Test Device: LSG-1800B

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

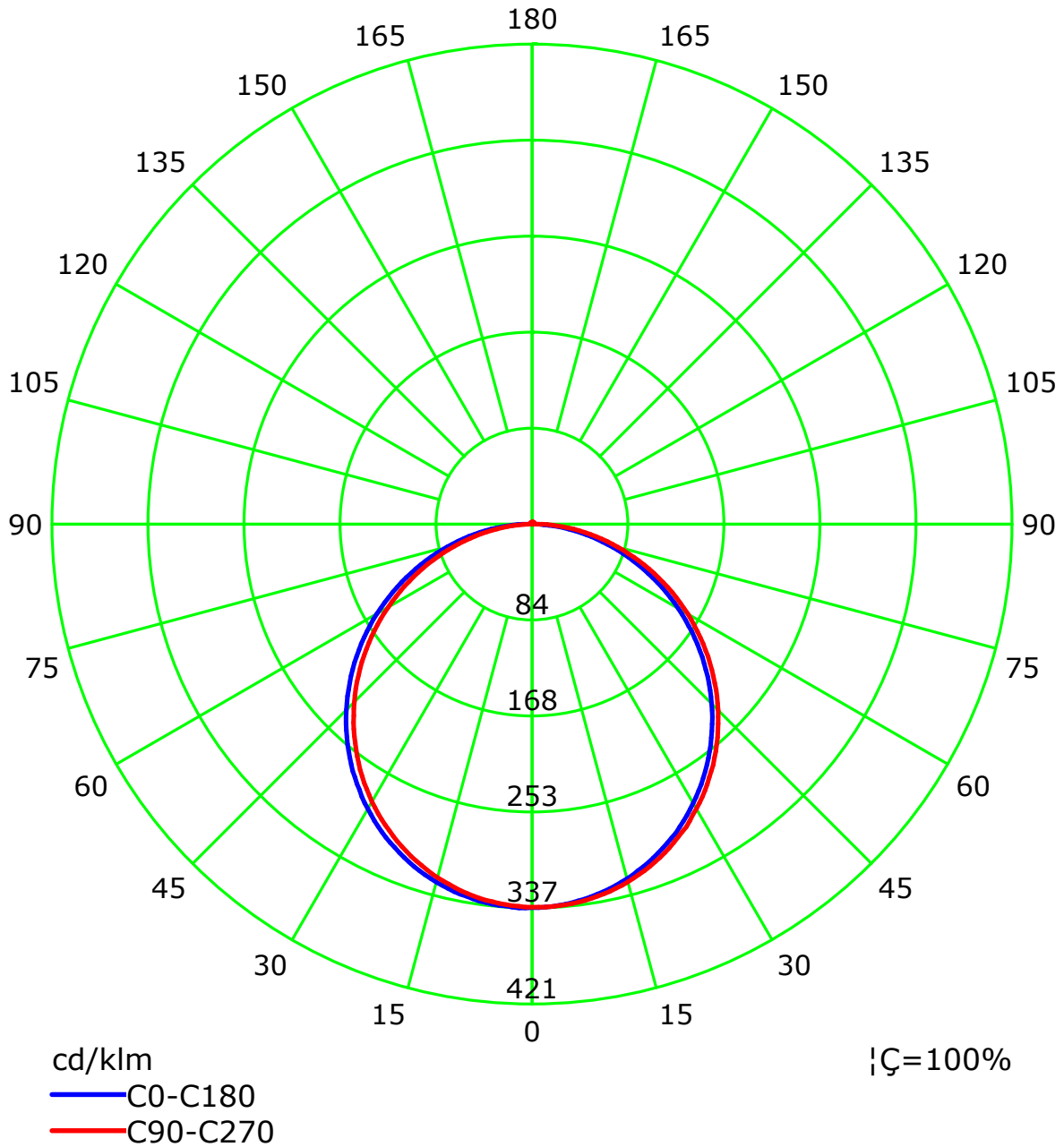
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Luminous Intensity Distribution Curve(cd/klm)



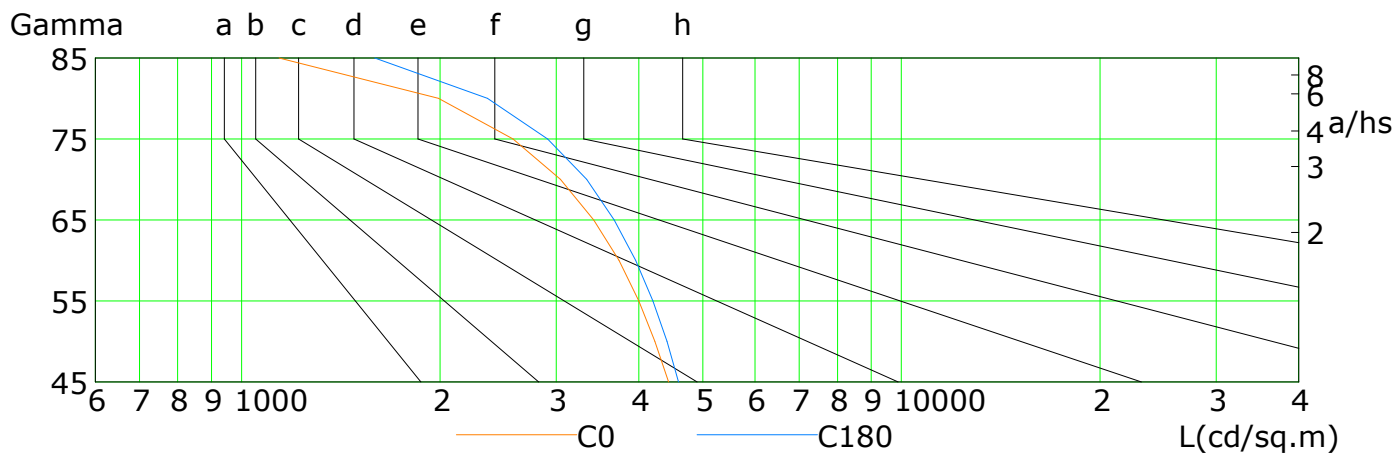
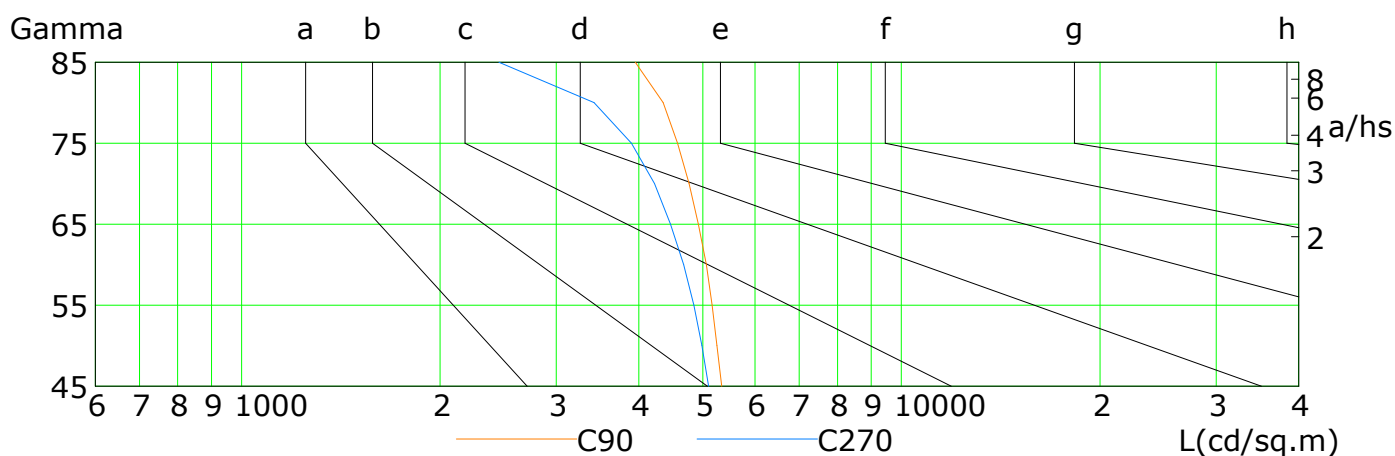
C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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

a b c d e f g h

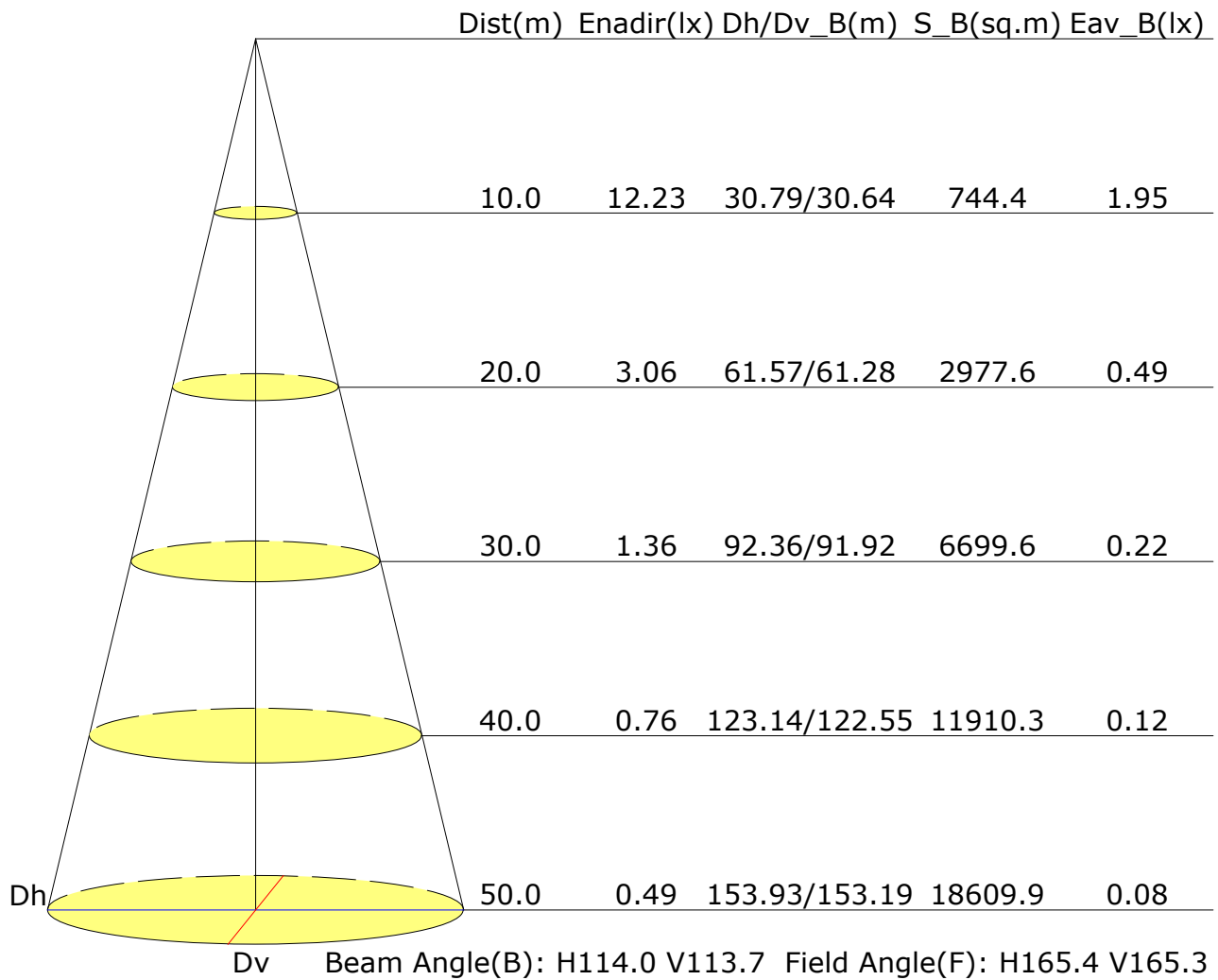


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	4440	4230	4000	3733	3415	3043	2578	1988	1140
C90	5341	5253	5164	5061	4923	4767	4576	4352	3952
C180	4596	4412	4201	3957	3671	3334	2910	2358	1592
C270	5103	4986	4846	4676	4470	4223	3898	3422	2454

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:

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	17.3	18.7	17.6	18.9	19.2	17.8	19.2	18.1	19.5	19.7
3H	18.7	20.0	19.1	20.3	20.6	19.4	20.7	19.8	21.0	21.3
4H	19.2	20.5	19.6	20.8	21.1	20.1	21.3	20.5	21.6	22.0
6H	19.6	20.7	20.0	21.1	21.4	20.7	21.8	21.0	22.1	22.5
8H	19.7	20.8	20.1	21.1	21.5	20.9	21.9	21.2	22.3	22.6
12H	19.8	20.8	20.2	21.2	21.5	21.0	22.0	21.4	22.4	22.7
X=4H Y=2H	18.0	19.2	18.3	19.5	19.8	18.4	19.6	18.7	19.9	20.2
3H	19.6	20.6	20.0	20.9	21.3	20.2	21.2	20.6	21.6	21.9
4H	20.2	21.2	20.6	21.5	21.9	21.0	21.9	21.4	22.3	22.7
6H	20.7	21.5	21.1	21.9	22.3	21.6	22.5	22.1	22.9	23.3
8H	20.8	21.6	21.3	22.0	22.5	21.9	22.7	22.3	23.1	23.5
12H	20.9	21.6	21.4	22.0	22.5	22.1	22.8	22.5	23.2	23.7
X=8H Y=4H	20.5	21.3	21.0	21.7	22.1	21.2	22.0	21.7	22.4	22.8
6H	21.1	21.7	21.6	22.2	22.7	22.0	22.6	22.5	23.1	23.6
8H	21.3	21.9	21.8	22.4	22.9	22.3	22.9	22.8	23.3	23.8
12H	21.5	21.9	22.0	22.4	22.9	22.6	23.0	23.1	23.5	24.0
X=12H Y=4H	20.5	21.2	21.0	21.7	22.1	21.2	21.9	21.7	22.3	22.8
6H	21.2	21.7	21.7	22.2	22.7	22.0	22.6	22.5	23.0	23.6
8H	21.4	21.9	21.9	22.4	22.9	22.4	22.9	22.9	23.3	23.9
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	+0.6/-0.9					+0.5/-0.8				

Calculate in accordance with CIE Pub.117. The table is revised with 3629lm ($8\log(F/F_0) = 4.5$).

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 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	0.78	0.86	0.91	0.95	0.99	1.02	
	0.30		0.47	0.58	0.65	0.71	0.79	0.85	0.89	0.95	0.99	
	0.20		0.42	0.52	0.60	0.65	0.74	0.80	0.85	0.91	0.95	
0.50	0.50	0.20	0.54	0.63	0.70	0.75	0.83	0.87	0.91	0.95	0.98	
	0.30		0.46	0.57	0.64	0.69	0.77	0.82	0.86	0.92	0.95	
	0.20		0.41	0.51	0.59	0.64	0.72	0.78	0.82	0.88	0.92	
0.30	0.50	0.20	0.52	0.61	0.68	0.73	0.79	0.84	0.87	0.91	0.94	
	0.30		0.46	0.55	0.62	0.68	0.75	0.80	0.83	0.88	0.91	
	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	0.38	0.48	0.55	0.60	0.67	0.72	0.76	0.81	0.84	
Rating:39W 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	1.02	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	0.39	0.33	0.26	0.22	
	0.20		0.73	0.63	0.56	0.50	0.42	0.36	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	0.55	0.49	0.41	0.35	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	0.43	0.36	0.31	0.24	0.20	
	0.20		0.71	0.61	0.54	0.48	0.40	0.34	0.29	0.23	0.19	
0.00	0.00	0.00	0.61	0.51	0.45	0.39	0.32	0.27	0.23	0.18	0.15	
Rating:39W 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	0.20	0.20	0.21	0.22	0.22	0.23	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	0.09	0.10	0.12	0.13	0.15	0.16	0.18	
0.50	0.50	0.20	0.17	0.18	0.19	0.19	0.20	0.21	0.21	0.22	0.22	
	0.30		0.10	0.12	0.13	0.14	0.16	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	0.12	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	0.17	
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:39W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												