

Report No.: 1

Test Time: 06.11.2019 16:54

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FG 180 4x18 LED 0,3A 36W 3000K opal

Luminous Length (mm): 1200

Luminous Width (mm): 180

Luminous Height (mm): 35

Voltage: 221.3 V

Current: 0.172 A

Power: 37.59 W

Power Factor: 0.982

Photometric Results

CIE Class: Direct

Measurement Flux: 3099.9 lm

Downward Ratio: 99%

Total Rated Lamp Lumens: 3099.9 lm

Efficiency: 100%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 165.2, 164.7, 165.1, 164.9

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 113.8, 113.5, 113.7, 113.7

Luminaire Efficacy Rating (LER): 82.52

Central Intensity: 1056.03 cd

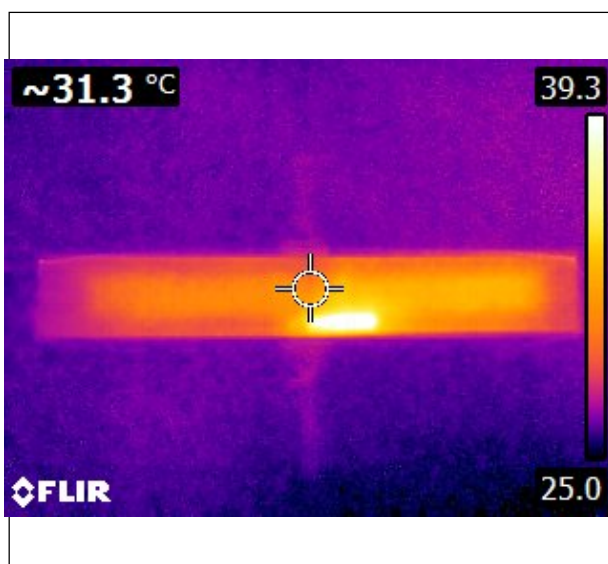
Max. Intensity: 1056.04 cd

Pos of Max. Intensity: H0 V0

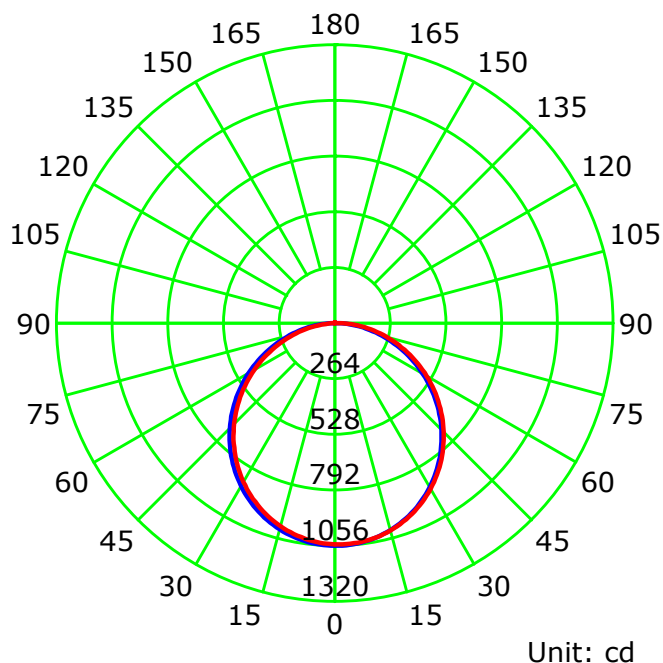
S/MH(C0/C180): 1.26

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

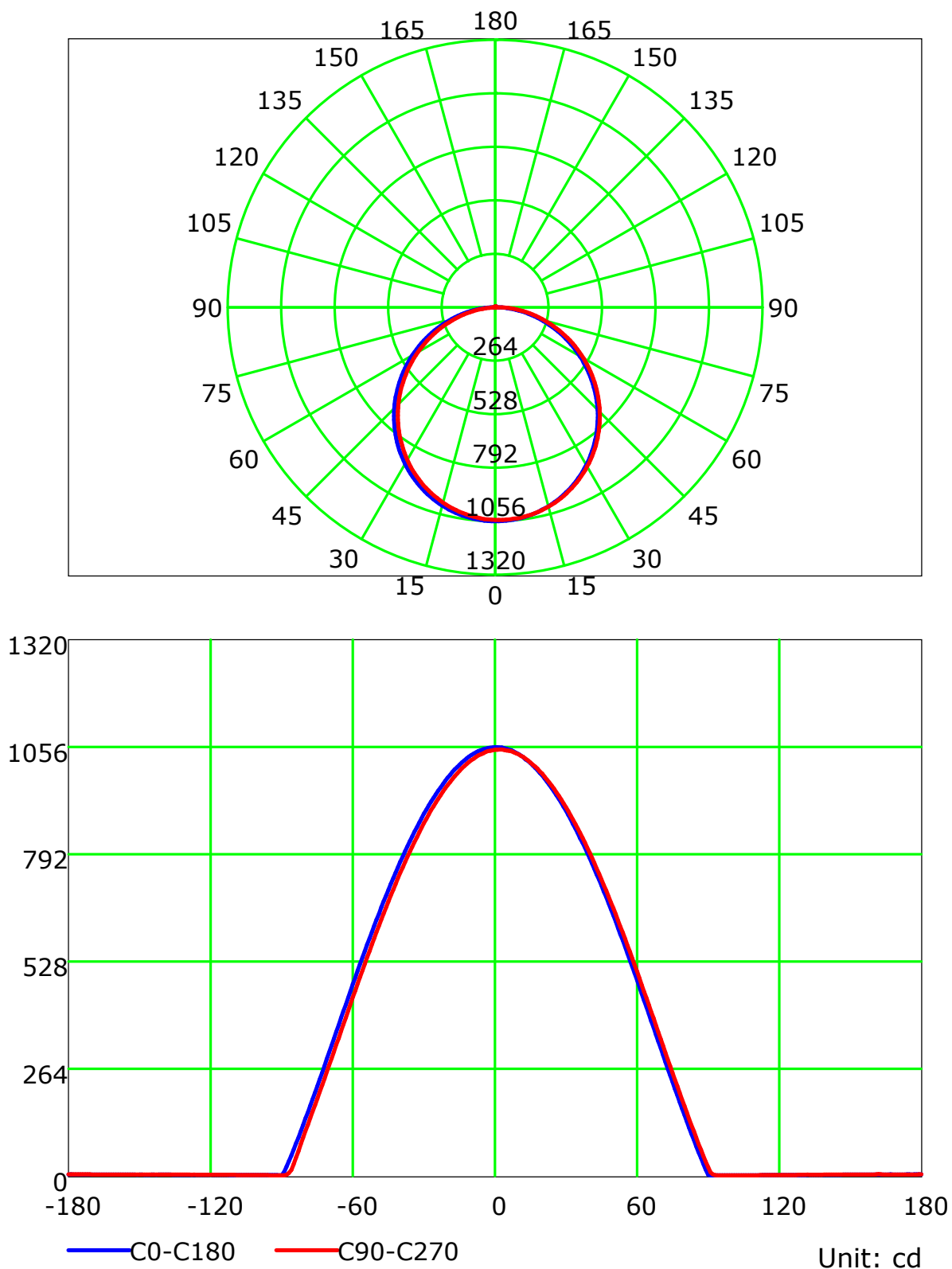
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

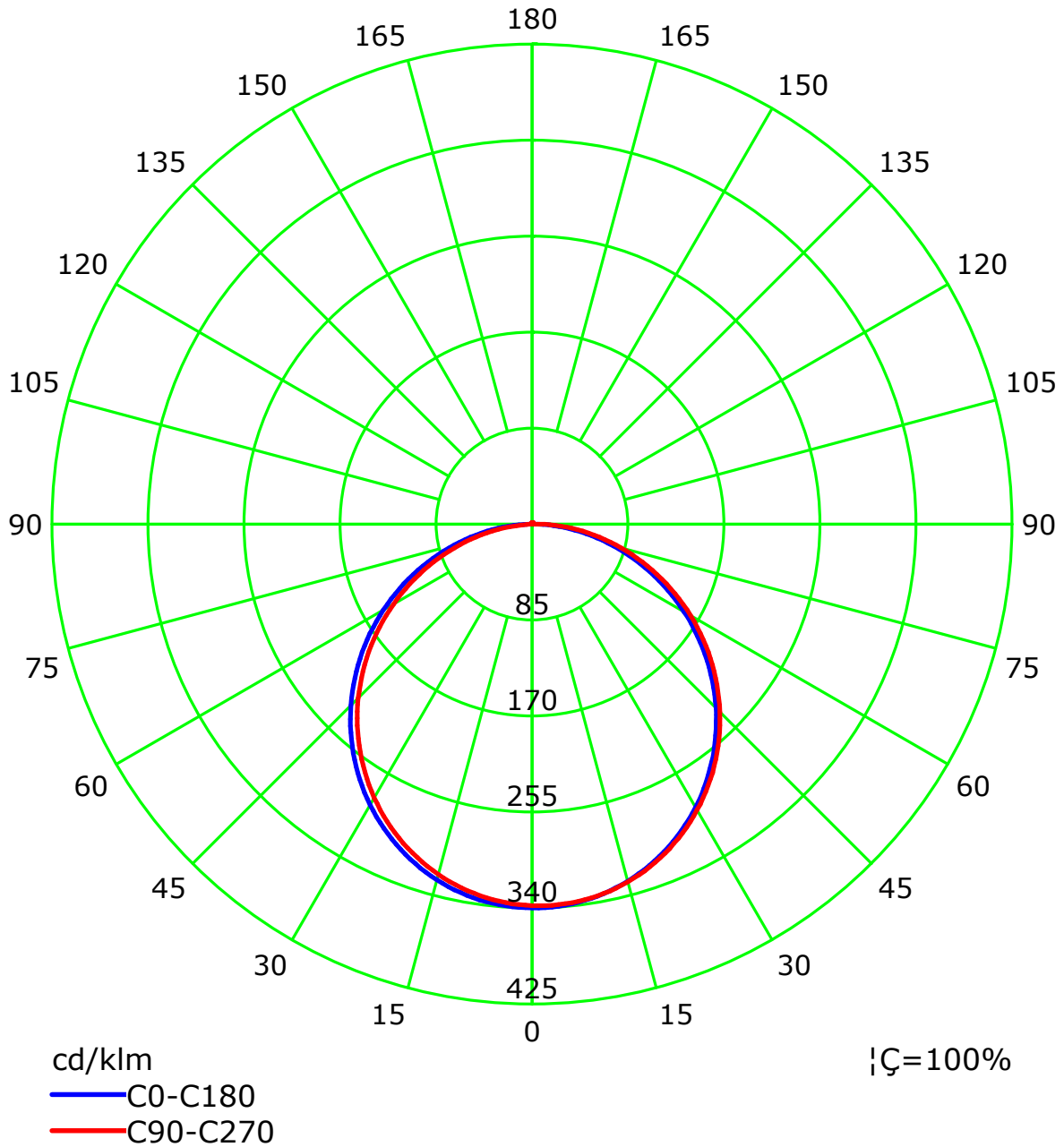
Luminous Intensity Distribution Curve



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)



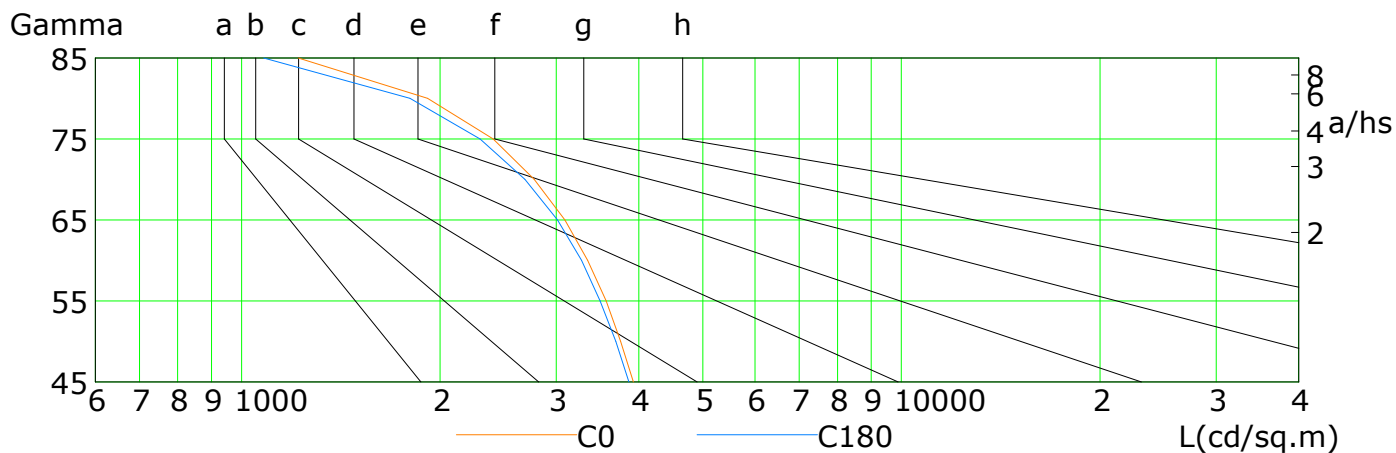
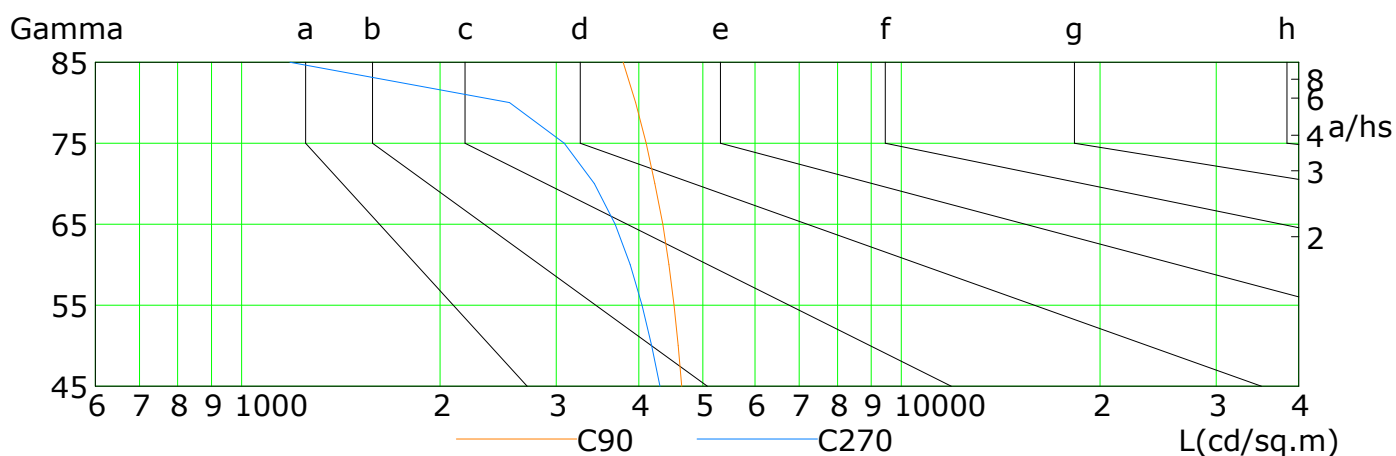
C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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

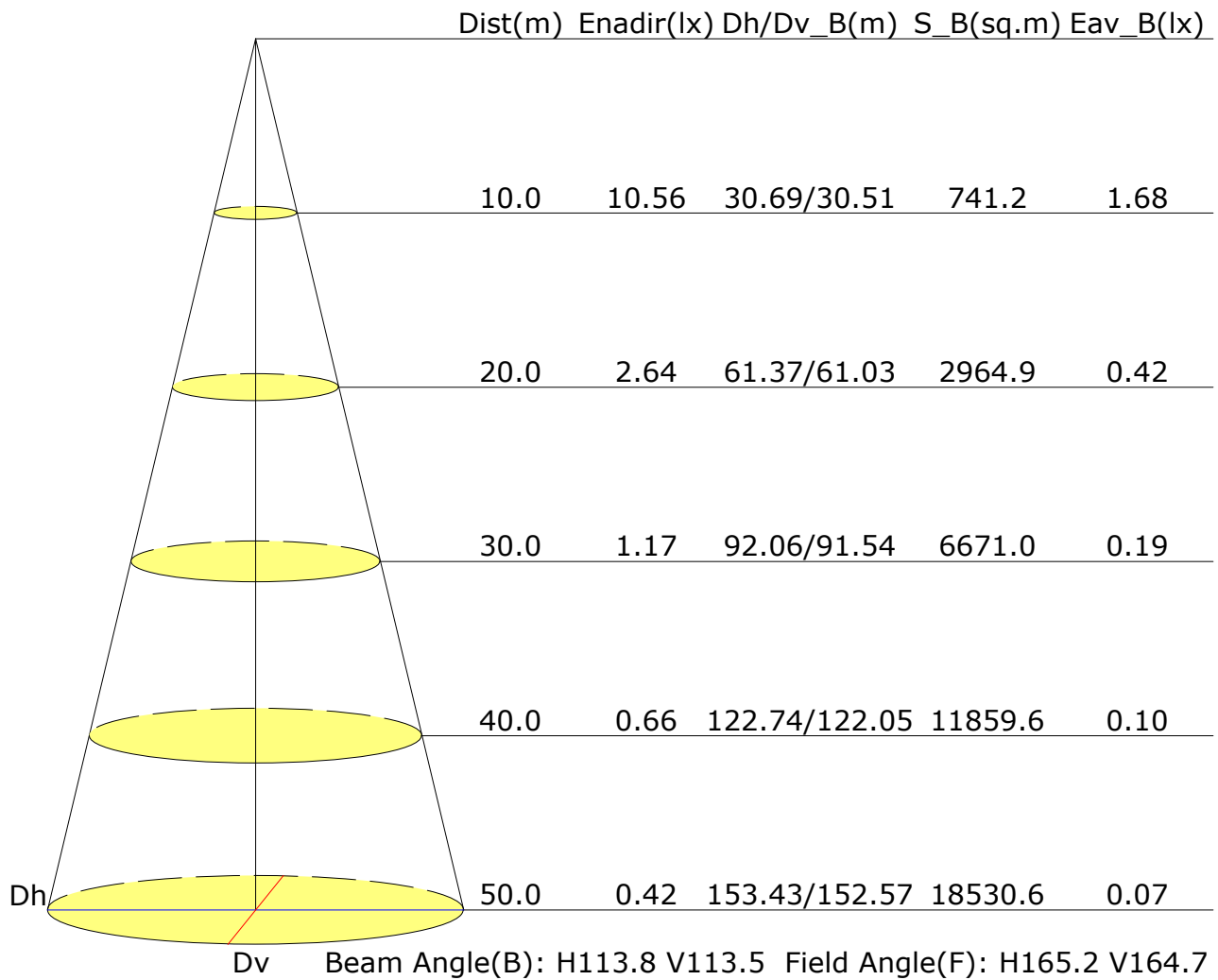


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	3923	3753	3568	3344	3090	2778	2406	1913	1219
C90	4647	4588	4524	4440	4348	4228	4106	3955	3785
C180	3862	3691	3496	3274	3013	2688	2299	1800	1080
C270	4304	4182	4044	3882	3682	3425	3083	2548	1184

C Plane (°):0.0-360.0: 22.5
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 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	17.0	18.4	17.3	18.7	18.9	17.4	18.8	17.7	19.0	19.3
3H	18.5	19.8	18.8	20.0	20.3	19.0	20.3	19.3	20.6	20.9
4H	19.1	20.3	19.4	20.6	20.9	19.7	20.9	20.0	21.2	21.5
6H	19.5	20.6	19.9	20.9	21.3	20.2	21.3	20.6	21.7	22.0
8H	19.6	20.7	20.0	21.0	21.4	20.4	21.5	20.8	21.8	22.2
12H	19.7	20.7	20.1	21.1	21.4	20.5	21.6	20.9	21.9	22.3
X=4H Y=2H	17.7	18.9	18.0	19.2	19.5	18.0	19.2	18.3	19.5	19.8
3H	19.3	20.4	19.7	20.7	21.1	19.8	20.8	20.2	21.2	21.5
4H	20.0	21.0	20.5	21.3	21.7	20.6	21.5	21.0	21.9	22.3
6H	20.6	21.4	21.0	21.8	22.2	21.2	22.1	21.7	22.5	22.9
8H	20.7	21.5	21.2	21.9	22.4	21.5	22.2	21.9	22.6	23.1
12H	20.9	21.5	21.3	22.0	22.4	21.6	22.3	22.1	22.8	23.2
X=8H Y=4H	20.3	21.1	20.8	21.5	22.0	20.8	21.6	21.3	22.0	22.4
6H	21.0	21.6	21.5	22.1	22.6	21.6	22.2	22.1	22.7	23.2
8H	21.3	21.8	21.8	22.3	22.8	21.9	22.5	22.4	22.9	23.4
12H	21.4	21.9	21.9	22.4	22.9	22.2	22.7	22.7	23.1	23.7
X=12H Y=4H	20.4	21.1	20.8	21.5	22.0	20.8	21.5	21.3	22.0	22.4
6H	21.1	21.6	21.6	22.1	22.6	21.7	22.2	22.2	22.7	23.2
8H	21.4	21.8	21.9	22.3	22.8	22.0	22.5	22.5	23.0	23.5
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 3100lm ($8\log(F/F_0) = 3.9$).

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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	0.79	0.86	0.91	0.95	0.99	1.03	
	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	0.88	0.91	0.95	0.98	
	0.30		0.47	0.57	0.64	0.70	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	0.89	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	0.63	0.68	0.75	0.80	0.84	0.89	0.92	
	0.20		0.41	0.51	0.58	0.63	0.71	0.77	0.81	0.86	0.89	
0.00	0.00	0.00	0.39	0.48	0.55	0.60	0.68	0.73	0.76	0.81	0.84	
Rating:38W 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	0.55	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	0.43	0.36	0.31	0.24	0.20	
	0.20		0.71	0.61	0.54	0.48	0.39	0.34	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:38W 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	0.18	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	0.14	0.16	0.17	
0.50	0.50	0.20	0.17	0.18	0.19	0.19	0.20	0.20	0.21	0.21	0.22	
	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	0.16	0.17	
0.30	0.50	0.20	0.16	0.17	0.18	0.18	0.19	0.20	0.20	0.20	0.21	
	0.30		0.10	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.18	
	0.20		0.05	0.07	0.08	0.09	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:38W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												