

Report No.:

Test Time: 17.04.2020 17:50

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FL 60 2x96LED 0,45A 45W 4000K microprisma

Luminous Length (mm): 1500

Luminous Width (mm): 60

Luminous Height (mm): 70

Voltage: 229.1 V

Current: 0.198 A

Power: 44.64 W

Power Factor: 0.981

Photometric Results

CIE Class: Direct

Measurement Flux: 5051.6 lm

Downward Ratio: 100%

Total Rated Lamp Lumens: 5051.6 lm

Efficiency: 100%

Upward Ratio: 0%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 160.3, 157.9, 149.3, 149.4

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 77.2, 74.1, 74.6, 74.6

Luminaire Efficacy Rating (LER): 113.21

Central Intensity: 2732.29 cd

Max. Intensity: 2733.4 cd

Pos of Max. Intensity: H22.5 V2

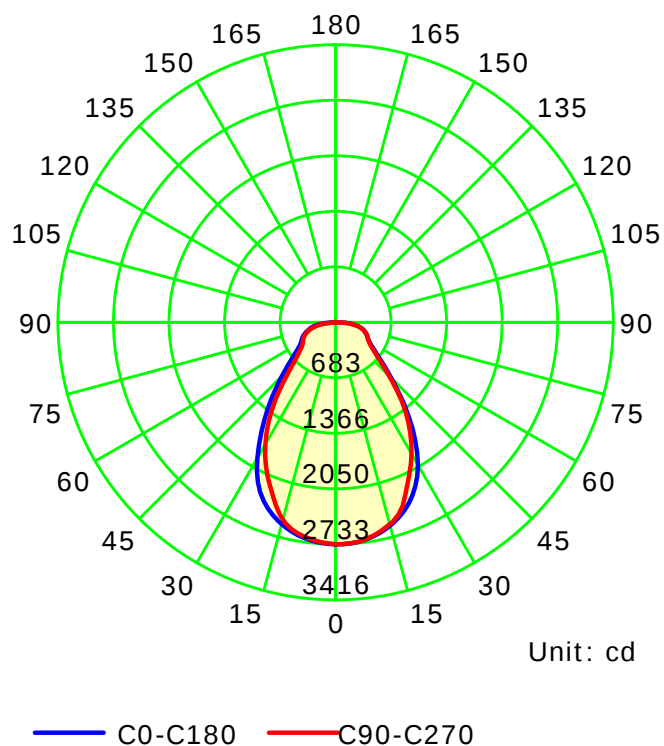
S/MH(C0/C180): 1.11

S/MH(C90/C270): 1.03

Termogramma



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

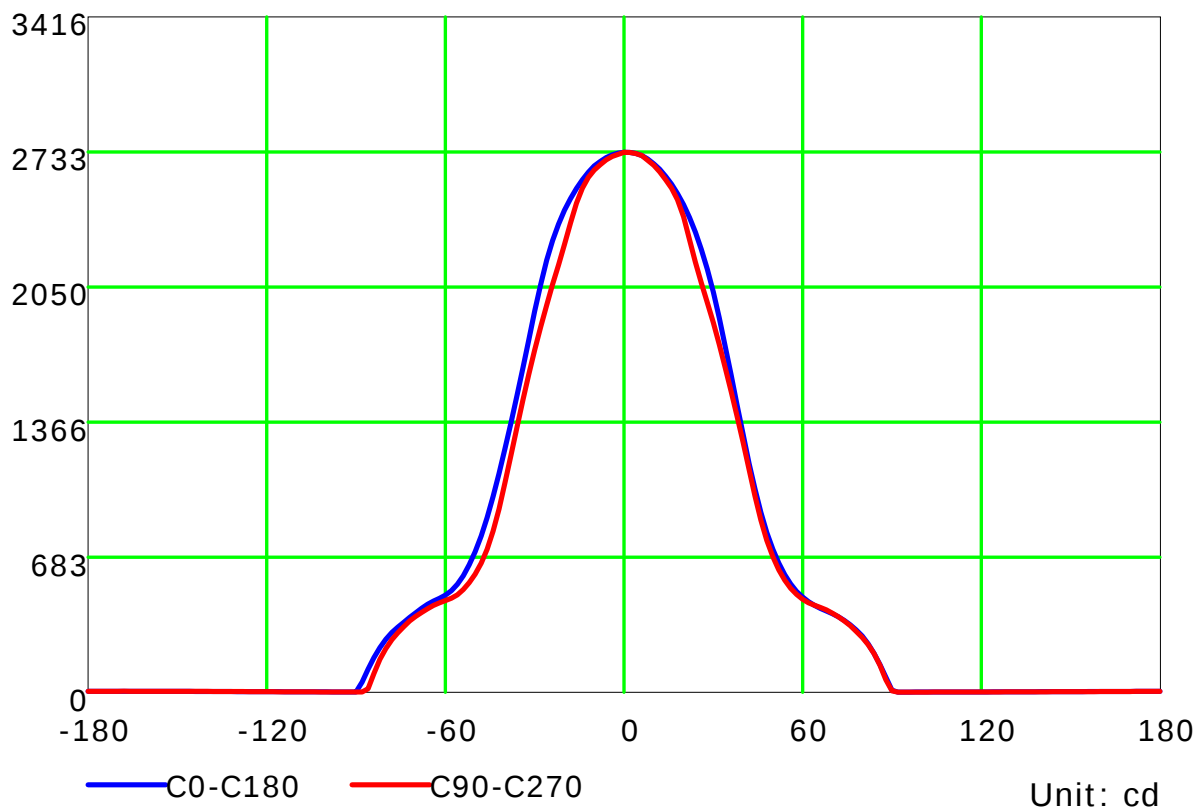
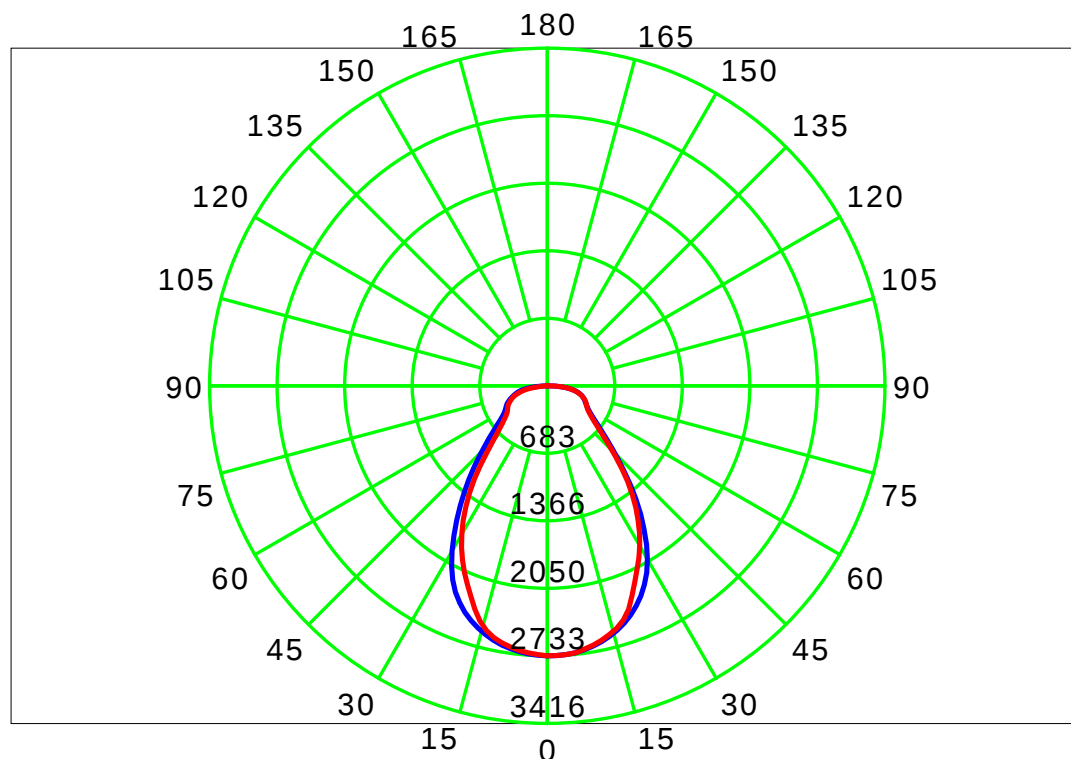
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Luminous Intensity Distribution Curve



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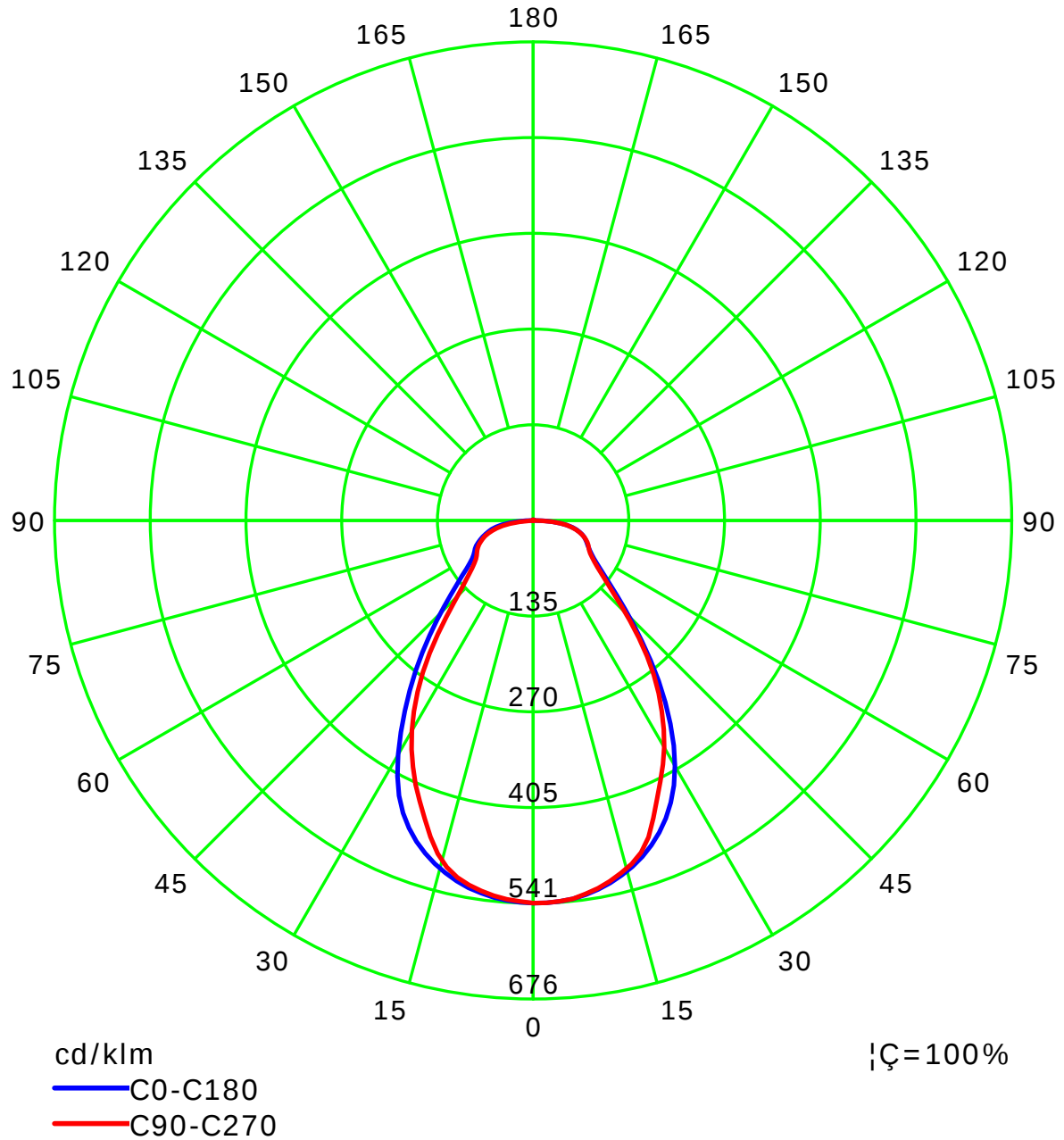
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Luminous Intensity Distribution Curve(cd / klm)



C Plane (°):0.0-360.0: 22.5

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Distance: 12.677 m

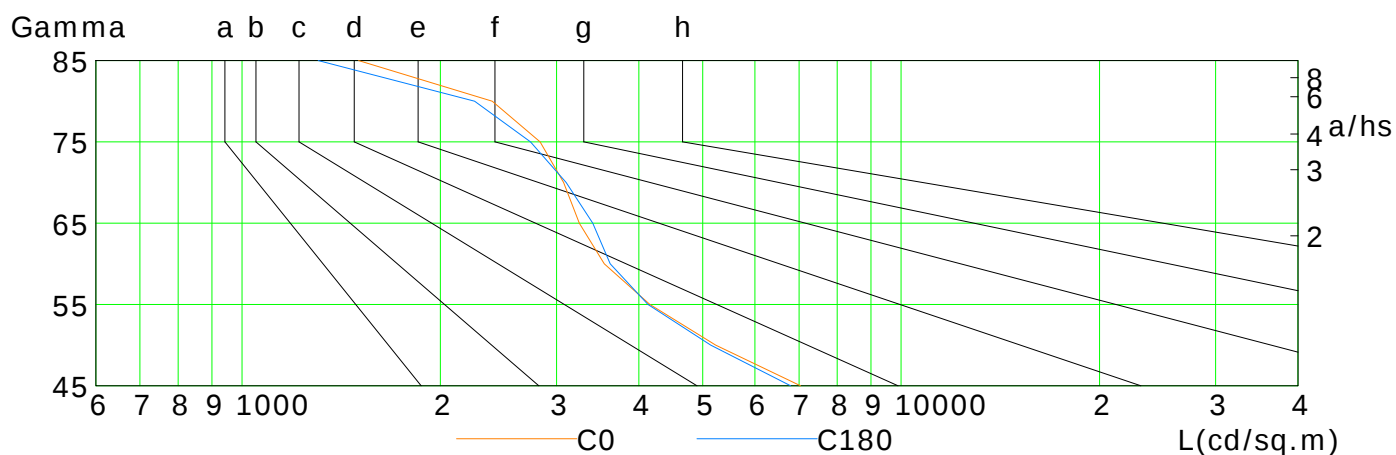
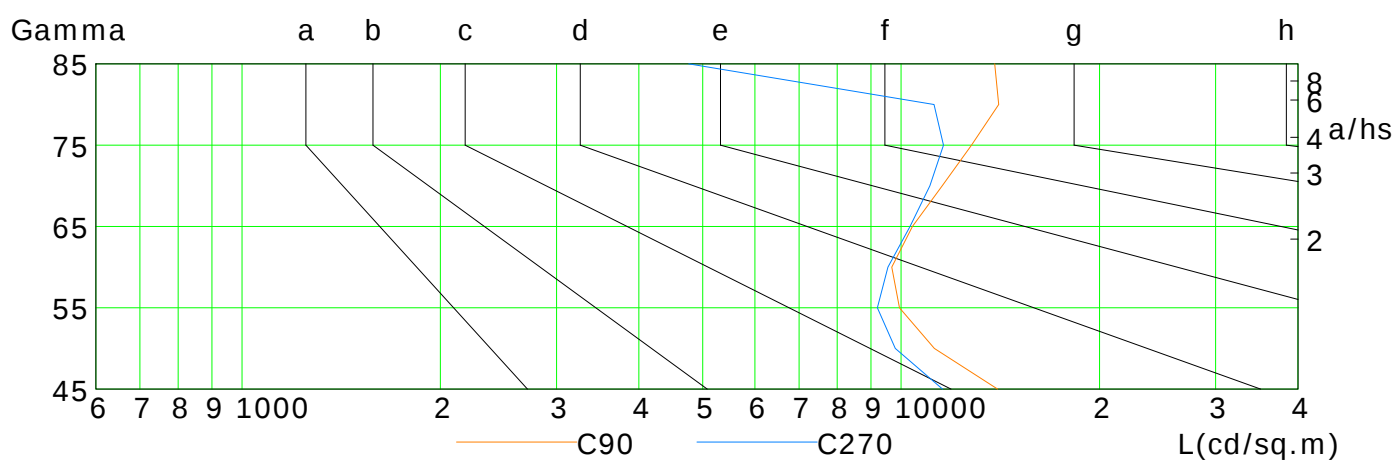
Humidity:

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	7037	5233	4157	3545	3248	3076	2832	2396	1503
C90	14005	11231	9940	9679	10402	11540	12787	14064	13866
C180	6798	5142	4130	3618	3406	3103	2740	2254	1305
C270	11556	9795	9202	9548	10317	11054	11596	11221	4761

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Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.0

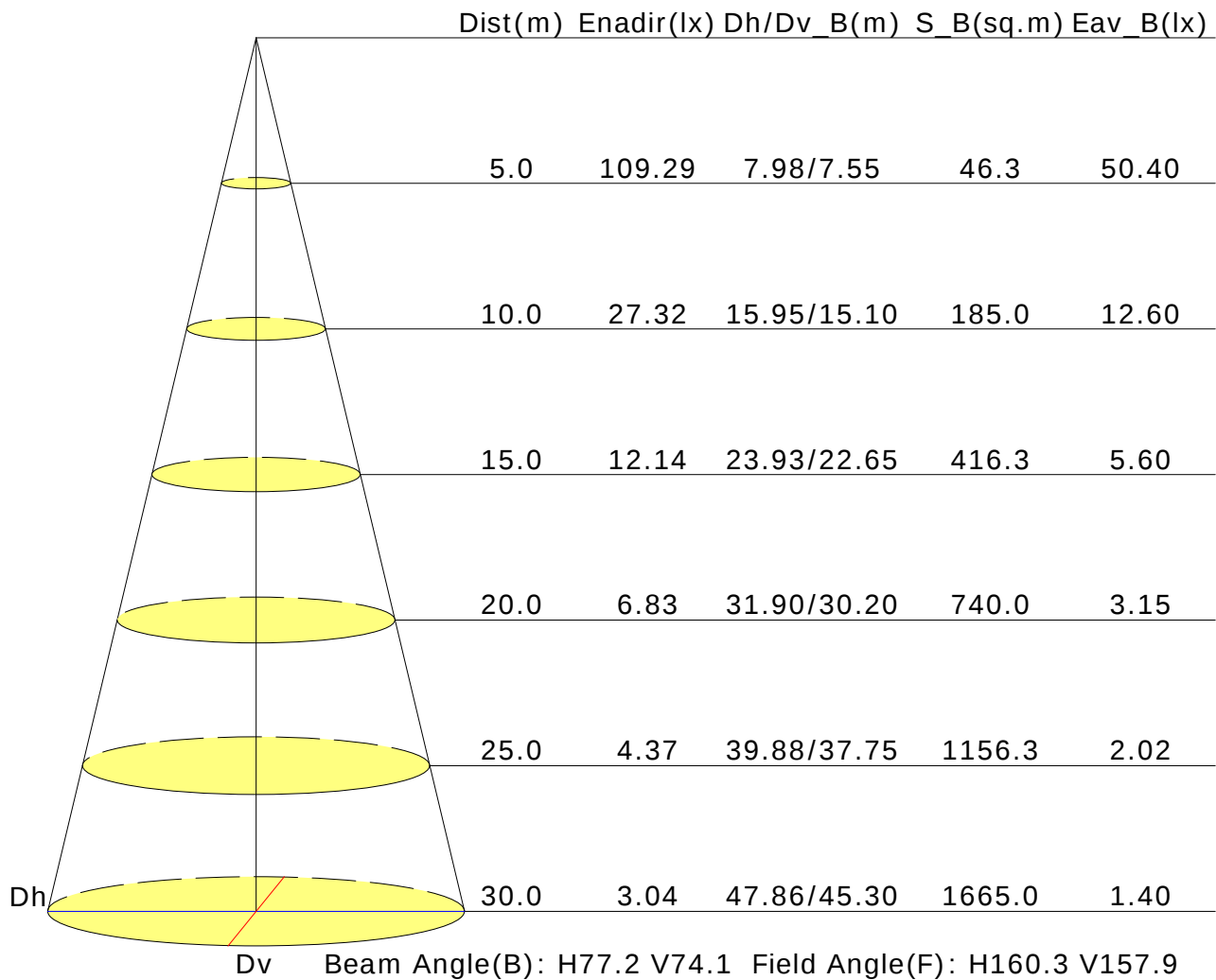
Test Device: LSG-1800B

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	17.3	18.5	17.6	18.8	19.0	18.5	19.8	18.8	20.0	20.2
3H	18.4	19.5	18.7	19.8	20.1	20.3	21.4	20.6	21.7	21.9
4H	19.0	20.1	19.4	20.4	20.7	21.2	22.3	21.6	22.6	22.9
6H	19.6	20.6	19.9	20.9	21.2	22.2	23.2	22.5	23.5	23.8
8H	19.8	20.7	20.1	21.1	21.4	22.5	23.5	22.9	23.8	24.2
12H	19.9	20.8	20.3	21.2	21.5	22.8	23.7	23.2	24.1	24.4
X=4H Y=2H	17.7	18.8	18.1	19.1	19.4	18.8	19.8	19.1	20.1	20.4
3H	19.1	20.0	19.5	20.3	20.7	20.7	21.6	21.1	21.9	22.3
4H	19.8	20.7	20.2	21.0	21.4	21.8	22.6	22.2	23.0	23.4
6H	20.5	21.3	21.0	21.7	22.1	22.8	23.6	23.3	24.0	24.4
8H	20.8	21.5	21.2	21.9	22.3	23.3	24.0	23.7	24.4	24.8
12H	21.0	21.6	21.4	22.0	22.5	23.6	24.2	24.0	24.6	25.1
X=8H Y=4H	20.1	20.8	20.6	21.2	21.6	21.9	22.6	22.3	23.0	23.4
6H	20.9	21.5	21.4	21.9	22.4	23.0	23.6	23.5	24.0	24.5
8H	21.3	21.8	21.8	22.2	22.7	23.5	24.0	24.0	24.5	25.0
12H	21.5	22.0	22.0	22.4	22.9	23.9	24.3	24.4	24.8	25.3
X=12H Y=4H	20.1	20.8	20.6	21.2	21.6	21.9	22.5	22.3	22.9	23.4
6H	21.0	21.5	21.5	22.0	22.4	23.1	23.6	23.5	24.0	24.5
8H	21.4	21.8	21.9	22.3	22.8	23.6	24.0	24.1	24.5	25.0
Variations with the observer position at spacings:										
S=1.0H	+0.3/-0.4					+0.2/-0.2				
S=1.5H	+0.6/-0.9					+0.6/-0.6				
S=2.0H	+1.2/-1.3					+1.1/-1.1				

Calculate in accordance with CIE Pub.117. The table is revised with 5052Im ($8\log(F/F_0) = 5.6$).

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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 = 1.00									
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	0.63	0.72	0.79	0.83	0.90	0.94	0.98	1.02	1.04	
	0.30		0.56	0.65	0.72	0.77	0.84	0.89	0.93	0.98	1.01	
	0.20		0.51	0.60	0.67	0.72	0.79	0.85	0.89	0.94	0.98	
0.50	0.50	0.20	0.62	0.70	0.76	0.81	0.87	0.91	0.94	0.98	1.00	
	0.30		0.55	0.64	0.71	0.75	0.82	0.87	0.90	0.94	0.97	
	0.20		0.51	0.60	0.66	0.71	0.78	0.83	0.86	0.92	0.95	
0.30	0.50	0.20	0.60	0.69	0.74	0.78	0.84	0.88	0.90	0.94	0.96	
	0.30		0.55	0.63	0.69	0.74	0.80	0.84	0.87	0.91	0.94	
	0.20		0.50	0.59	0.65	0.70	0.76	0.81	0.84	0.89	0.92	
0.00	0.00	0.00	0.48	0.57	0.62	0.67	0.73	0.77	0.80	0.84	0.87	
Rating:45W 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 = 1.00									
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	0.90	0.74	0.64	0.56	0.45	0.37	0.32	0.25	0.21	
	0.30		0.75	0.64	0.56	0.49	0.41	0.34	0.30	0.24	0.20	
	0.20		0.64	0.56	0.49	0.44	0.37	0.32	0.28	0.22	0.19	
0.50	0.50	0.20	0.86	0.71	0.61	0.53	0.43	0.39	0.30	0.24	0.19	
	0.30		0.73	0.62	0.54	0.48	0.39	0.33	0.29	0.22	0.19	
	0.20		0.63	0.55	0.48	0.43	0.36	0.31	0.27	0.21	0.18	
0.30	0.50	0.20	0.84	0.68	0.58	0.51	0.41	0.34	0.29	0.23	0.19	
	0.30		0.71	0.60	0.52	0.46	0.38	0.32	0.27	0.22	0.18	
	0.20		0.63	0.54	0.47	0.42	0.35	0.30	0.26	0.21	0.17	
0.00	0.00	0.00	0.52	0.43	0.38	0.33	0.27	0.23	0.20	0.16	0.13	
Rating:45W 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 = 1.00									
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	0.13	0.15	0.16	0.17	
0.50	0.50	0.20	0.15	0.17	0.18	0.18	0.19	0.20	0.20	0.21	0.21	
	0.30		0.10	0.11	0.12	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	0.16	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rating:45W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												