

Report No.:

Test Time: 03.08.2020 14:20

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FD 111 100W 5000K 60 rp Ex

Number of Lamps: 1

Luminous Length (mm): 400 mm

Luminous Height (mm): 153 mm

Current: 0.466 A

Power Factor: 0.976

Lumens per Lamp: 10344.0 lm

Luminous Width (mm): 400 mm

Voltage: 221.2 V

Power: 100.61 W

Photometric Results

CIE Class: Direct

Measurement Flux: 10344 lm

Downward Ratio: 99.63%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 109.7, 109.7, 111.4, 110.9

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 57.5, 57.4, 57.9, 57.0

Luminaire Efficacy Rating (LER): 102.86

Max. Intensity: 8925.47 cd

S/MH(C0/C180): 0.85

Total Rated Lamp Lumens: 10344.0 lm

Efficiency: 100.00%

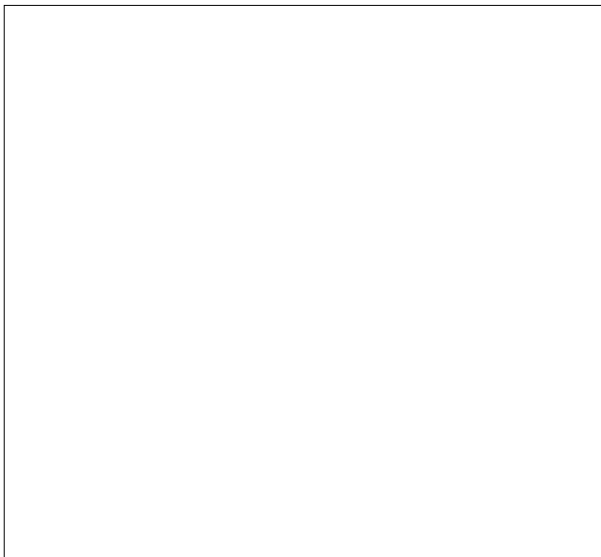
Upward Ratio: 0.37%

Central Intensity: 8893.4 cd

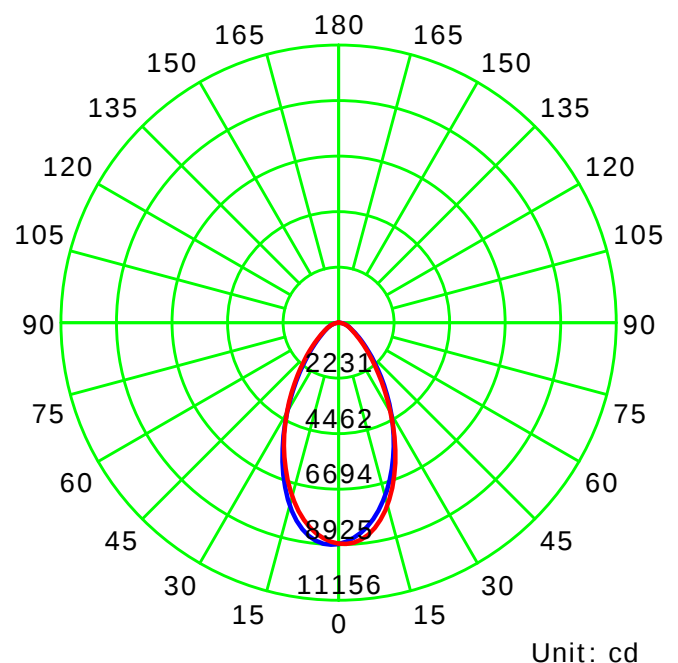
Pos of Max. Intensity: H180 V2

S/MH(C90/C270): 0.85

Picture Of Luminaire



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 (°):0.0-180.0:2.0

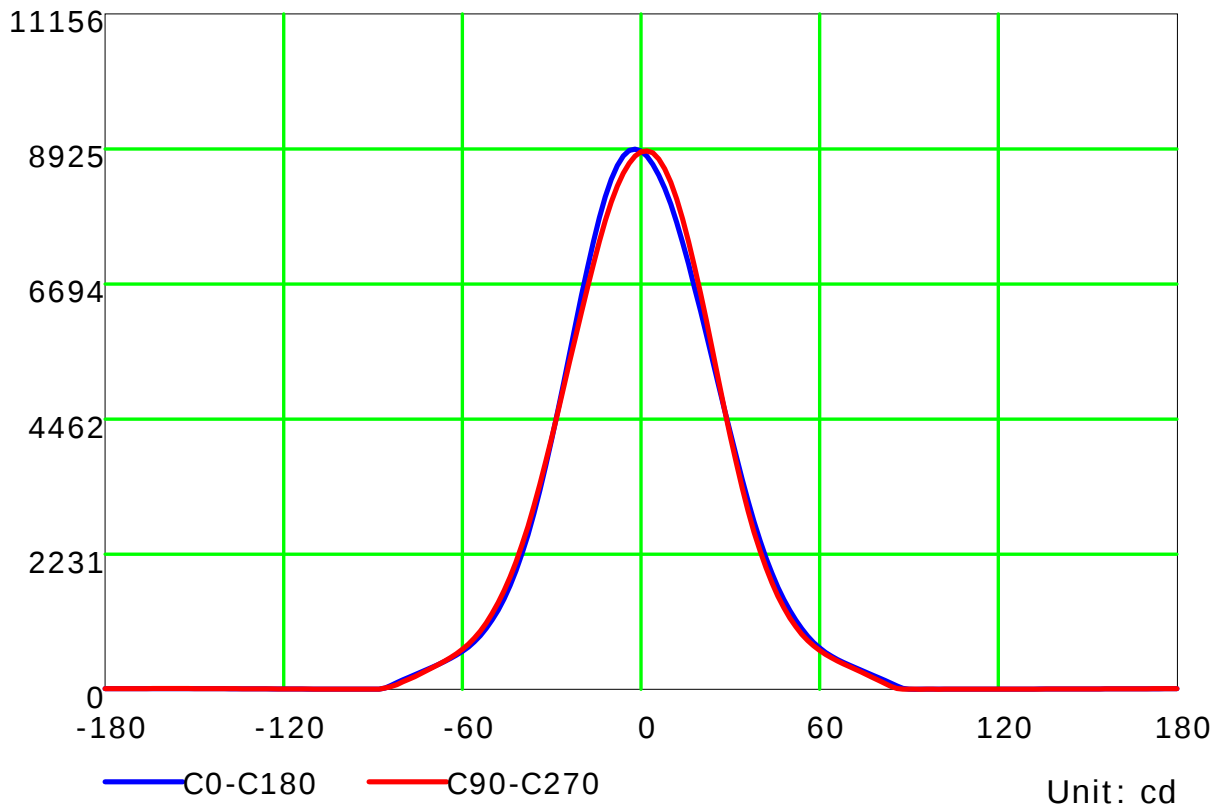
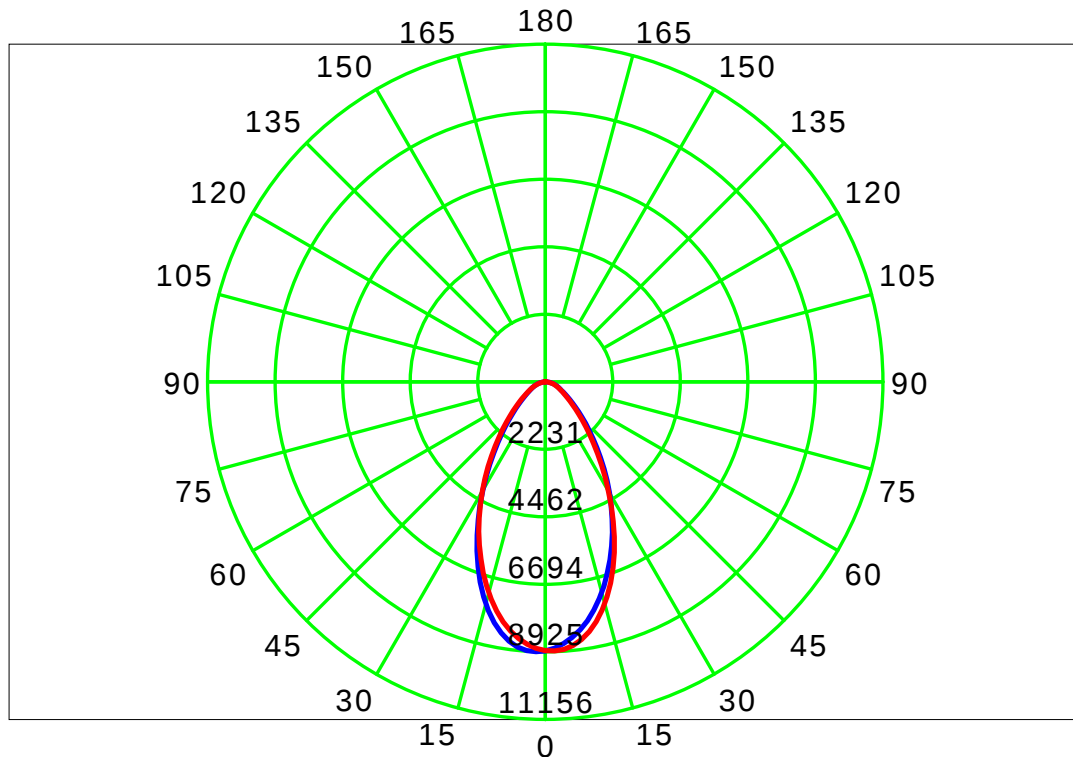
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

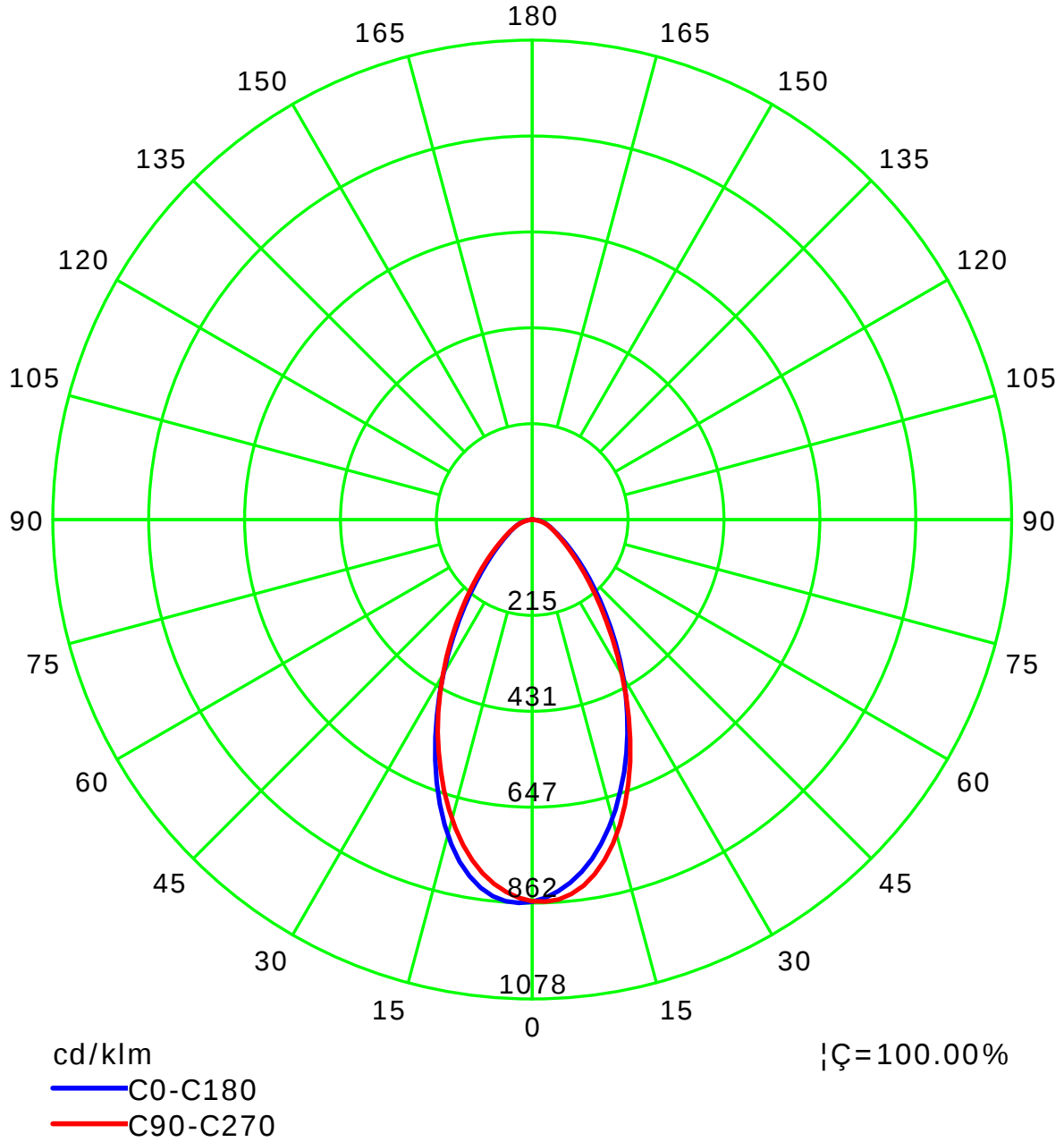
Luminous Intensity Distribution Curve



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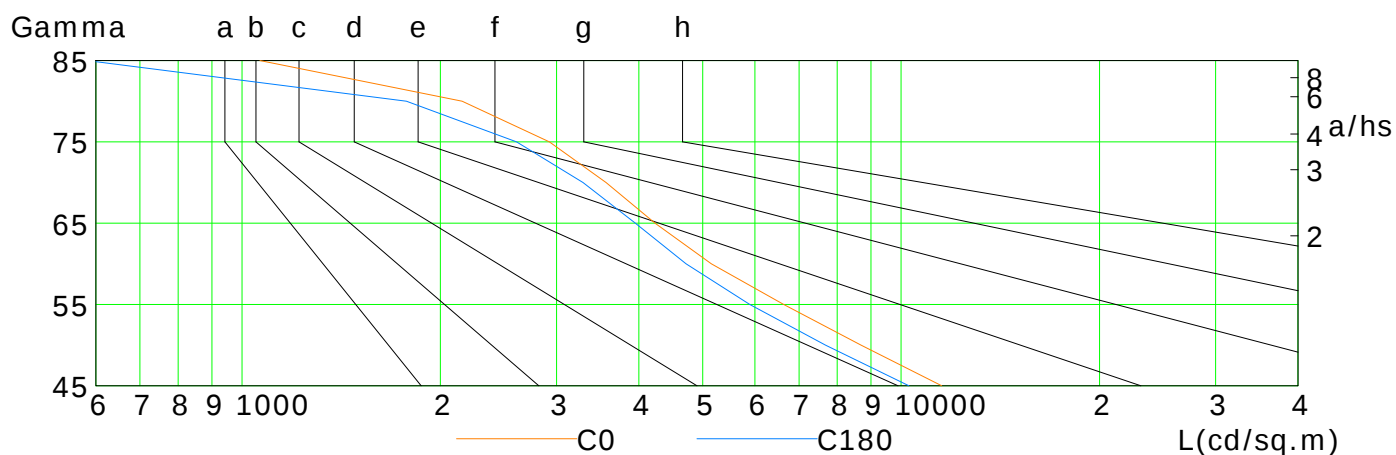
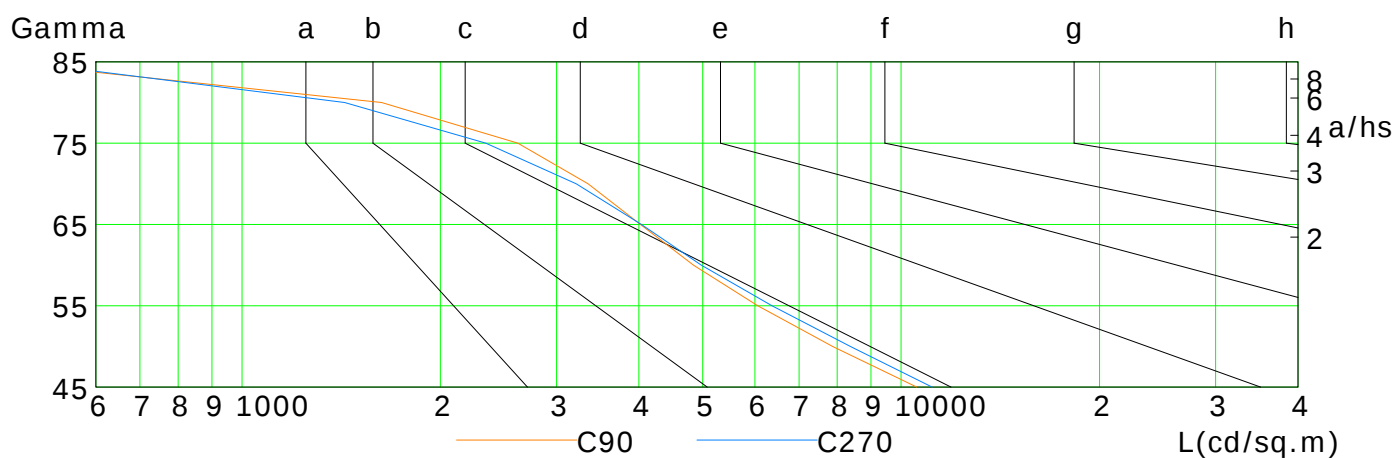
Luminous Intensity Distribution Curve(cd / klm)



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	11522	8693	6633	5154	4233	3567	2926	2157	1065
C90	10557	7871	6061	4840	4023	3350	2621	1628	427
C180	10274	7676	5894	4718	3950	3291	2610	1776	583
C270	11143	8374	6370	4975	4035	3215	2343	1431	463

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Test Type: TYPE C

Temperature:

Operator:

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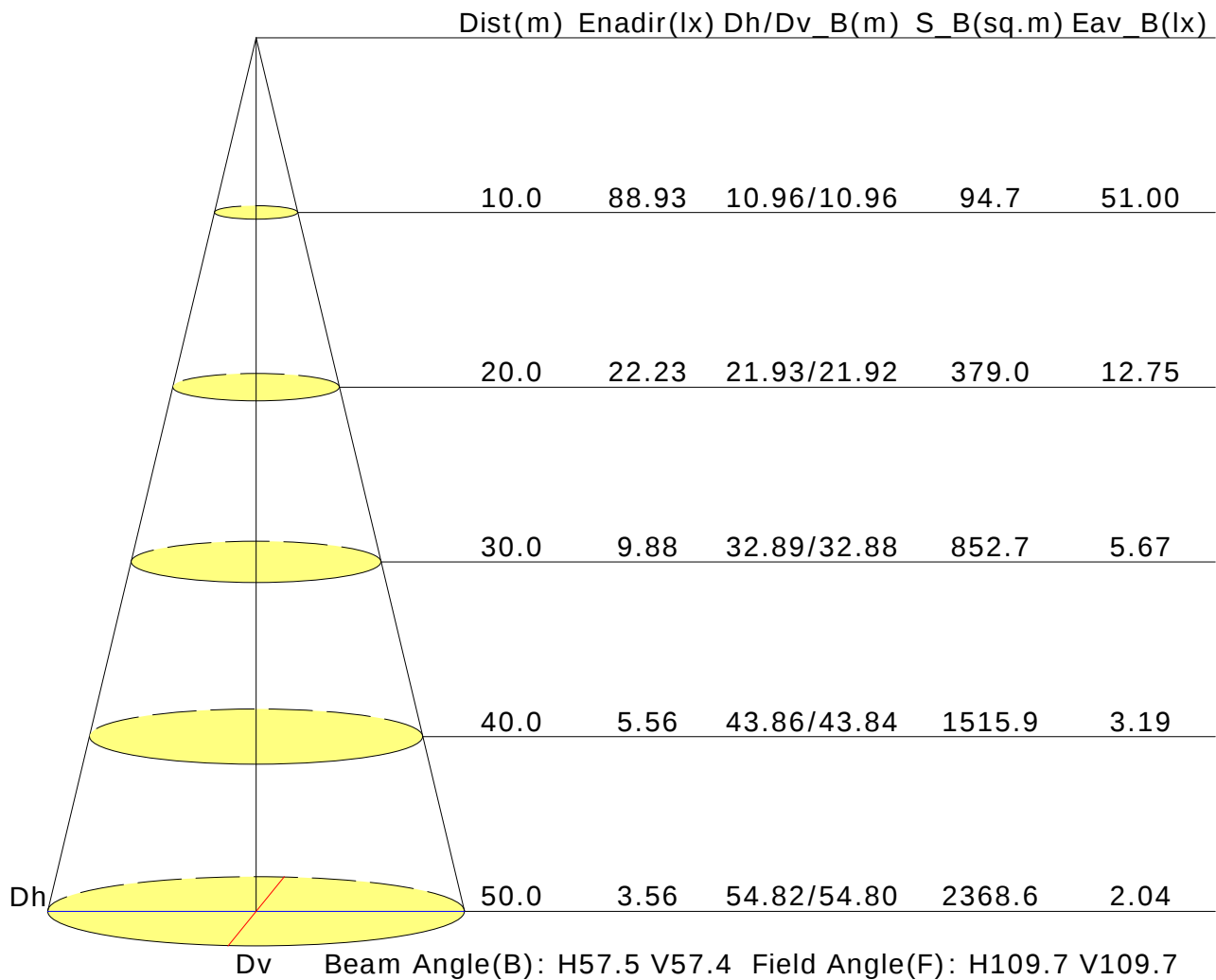
Test Device: LSG-1800B

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	17.8	18.9	18.1	19.1	19.3	17.6	18.7	17.9	18.9	19.1
3H	18.4	19.4	18.7	19.6	19.9	18.1	19.1	18.4	19.4	19.6
4H	18.6	19.5	19.0	19.8	20.1	18.3	19.3	18.7	19.5	19.8
6H	18.8	19.7	19.2	20.0	20.3	18.4	19.3	18.8	19.6	19.9
8H	18.8	19.7	19.2	20.0	20.3	18.4	19.3	18.8	19.6	19.9
12H	18.8	19.6	19.2	20.0	20.3	18.4	19.2	18.8	19.5	19.9
X=4H Y=2H	18.0	18.9	18.3	19.2	19.5	17.8	18.7	18.1	19.0	19.3
3H	18.7	19.5	19.1	19.8	20.2	18.5	19.3	18.9	19.6	20.0
4H	19.1	19.8	19.5	20.1	20.5	18.8	19.5	19.2	19.9	20.2
6H	19.3	20.0	19.8	20.3	20.7	19.0	19.6	19.4	20.0	20.4
8H	19.4	20.0	19.8	20.4	20.8	19.0	19.5	19.4	19.9	20.4
12H	19.4	19.9	19.9	20.4	20.8	19.0	19.5	19.4	19.9	20.3
X=8H Y=4H	19.1	19.7	19.6	20.1	20.5	18.9	19.5	19.3	19.9	20.3
6H	19.5	19.9	20.0	20.4	20.8	19.1	19.6	19.6	20.0	20.5
8H	19.6	20.0	20.1	20.5	20.9	19.2	19.6	19.6	20.0	20.5
12H	19.7	20.0	20.2	20.5	21.0	19.2	19.5	19.7	20.0	20.5
X=12H Y=4H	19.1	19.6	19.6	20.1	20.5	18.9	19.4	19.3	19.8	20.2
6H	19.5	19.9	20.0	20.3	20.8	19.1	19.5	19.6	20.0	20.5
8H	19.6	20.0	20.1	20.4	20.9	19.2	19.5	19.7	20.0	20.5
Variations with the observer position at spacings:										
S=1.0H	+0.6/-0.9					+0.7/-0.9				
S=1.5H	+1.6/-1.6					+1.7/-1.7				
S=2.0H	+2.8/-2.2					+2.9/-2.3				

Calculate in accordance with CIE Pub.117. The table is revised with 10344lm ($8\log(F/F_0) = 8.1$).

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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 = 0.75									
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	0.70	0.79	0.85	0.89	0.95	0.99	1.02	1.05	1.07	
	0.30		0.63	0.72	0.79	0.84	0.90	0.95	0.98	1.02	1.05	
	0.20		0.59	0.68	0.74	0.79	0.86	0.91	0.94	0.99	1.02	
0.50	0.50	0.20	0.68	0.77	0.82	0.86	0.92	0.95	0.98	1.01	1.03	
	0.30		0.63	0.71	0.77	0.82	0.88	0.92	0.95	0.98	1.01	
	0.20		0.58	0.67	0.73	0.78	0.84	0.89	0.92	0.96	0.99	
0.30	0.50	0.20	0.67	0.75	0.80	0.84	0.89	0.92	0.95	0.97	0.99	
	0.30		0.62	0.70	0.76	0.80	0.86	0.89	0.92	0.95	0.97	
	0.20		0.58	0.66	0.72	0.77	0.83	0.87	0.90	0.93	0.96	
0.00	0.00	0.00	0.56	0.64	0.70	0.74	0.80	0.83	0.86	0.89	0.91	
Rating:101W 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 = 0.75									
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	0.80	0.65	0.55	0.48	0.37	0.31	0.26	0.20	0.16	
	0.30		0.67	0.56	0.48	0.42	0.34	0.28	0.24	0.19	0.16	
	0.20		0.57	0.49	0.43	0.38	0.31	0.26	0.23	0.18	0.15	
0.50	0.50	0.20	0.77	0.62	0.52	0.45	0.35	0.33	0.25	0.19	0.15	
	0.30		0.65	0.54	0.46	0.40	0.32	0.27	0.23	0.18	0.15	
	0.20		0.57	0.48	0.41	0.37	0.30	0.25	0.22	0.17	0.14	
0.30	0.50	0.20	0.75	0.60	0.50	0.43	0.34	0.27	0.23	0.18	0.15	
	0.30		0.64	0.53	0.45	0.39	0.31	0.26	0.22	0.17	0.14	
	0.20		0.56	0.47	0.40	0.36	0.29	0.24	0.21	0.16	0.13	
0.00	0.00	0.00	0.44	0.36	0.30	0.26	0.21	0.17	0.14	0.11	0.09	
Rating:101W 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 = 0.75									
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	0.15	0.16	0.17	0.18	0.19	0.20	0.20	0.21	0.22	
	0.30		0.10	0.11	0.13	0.14	0.16	0.17	0.18	0.19	0.20	
	0.20		0.06	0.07	0.09	0.10	0.12	0.14	0.15	0.17	0.18	
0.50	0.50	0.20	0.15	0.16	0.17	0.18	0.19	0.19	0.20	0.20	0.21	
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19	
	0.20		0.06	0.07	0.09	0.10	0.12	0.14	0.15	0.16	0.17	
0.30	0.50	0.20	0.14	0.15	0.16	0.17	0.18	0.18	0.19	0.19	0.20	
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.16	0.18	0.18	
	0.20		0.06	0.07	0.09	0.10	0.12	0.13	0.14	0.16	0.17	
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:101W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												