

Report No.:

Test Time: 03.08.2020 16:03

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FD 111 100W 5000K 90 rp Ex

Number of Lamps: 1

Luminous Length (mm): 400 mm

Luminous Height (mm): 153 mm

Current: 0.467 A

Power Factor: 0.977

Lumens per Lamp: 10671.6 lm

Luminous Width (mm): 400 mm

Voltage: 221.2 V

Power: 100.93 W

Photometric Results

CIE Class: Direct

Measurement Flux: 10671.6 lm

Downward Ratio: 99.64%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 129.3, 128.2, 127.9, 126.9

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 82.3, 82.6, 83.1, 82.0

Luminaire Efficacy Rating (LER): 105.78

Max. Intensity: 5846.9 cd

S/MH(C0/C180): 1.43

Total Rated Lamp Lumens: 10671.6 lm

Efficiency: 100.00%

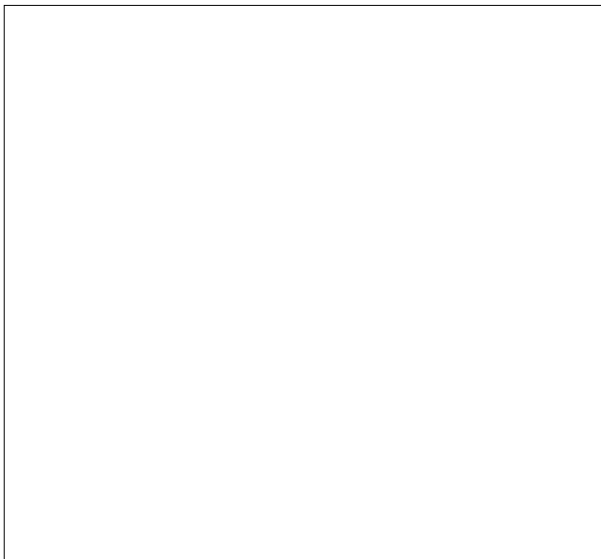
Upward Ratio: 0.36%

Central Intensity: 4891.55 cd

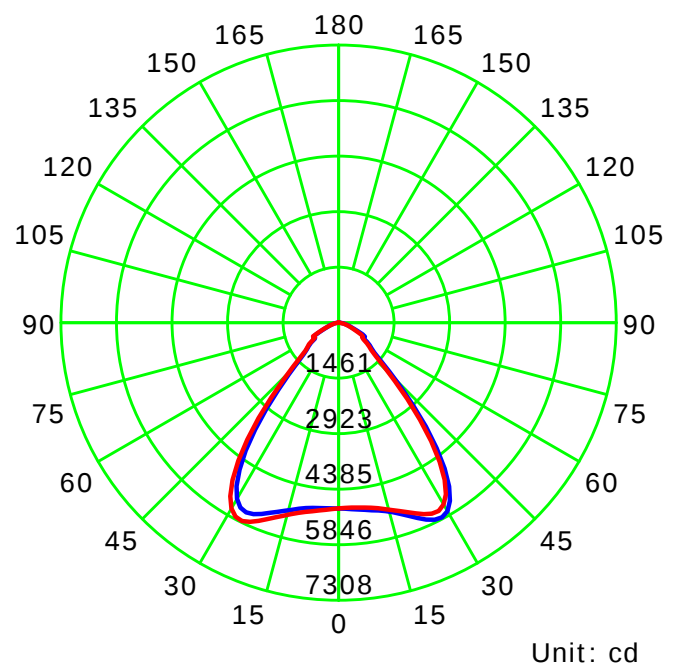
Pos of Max. Intensity: H337.5 V28

S/MH(C90/C270): 1.44

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

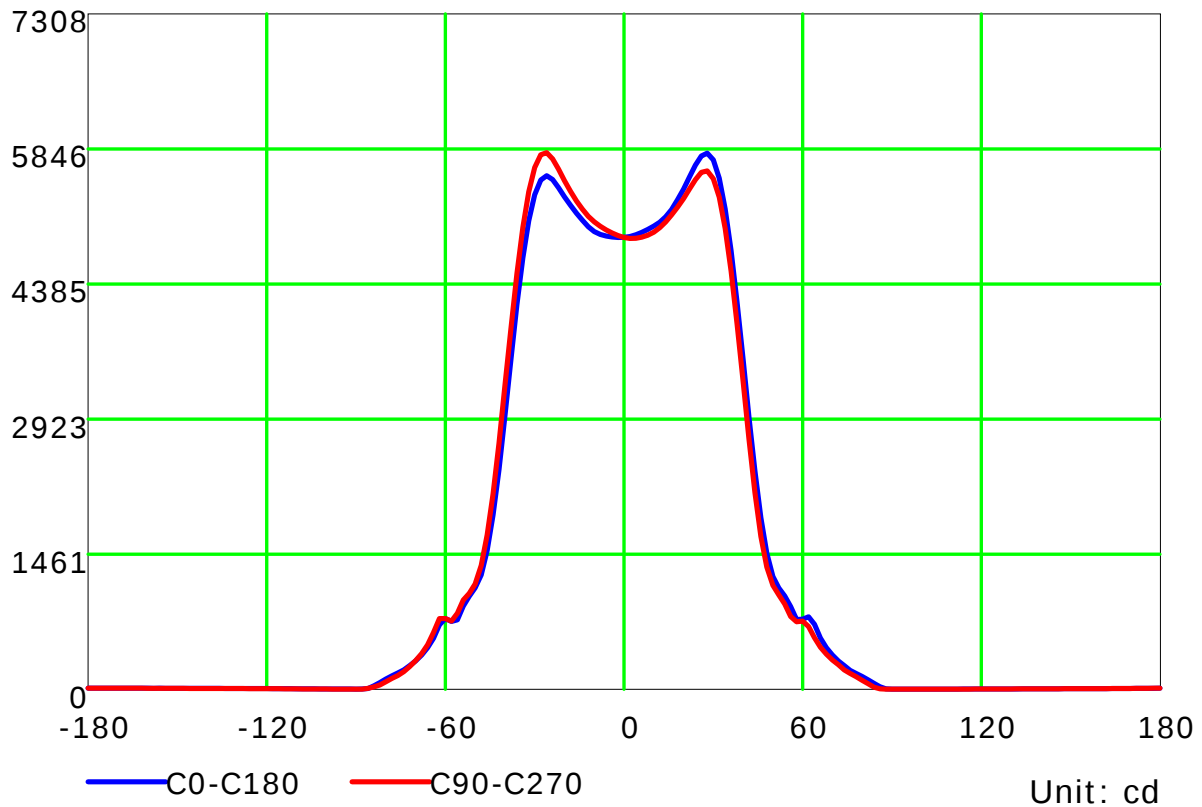
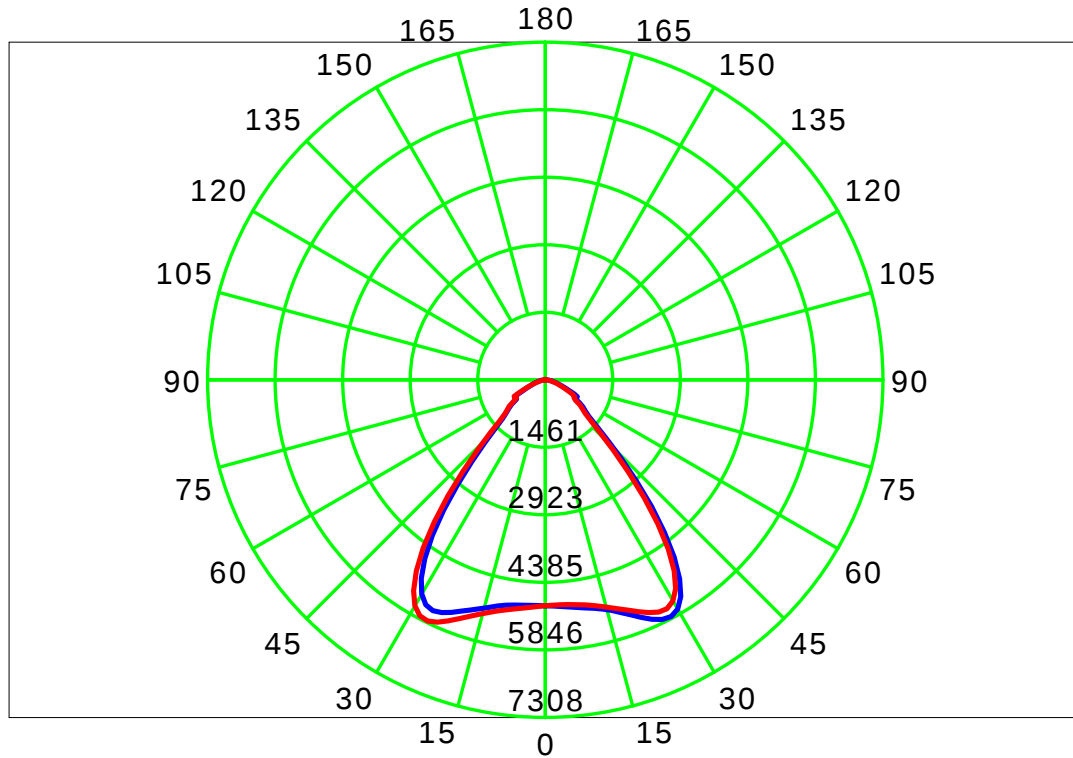
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

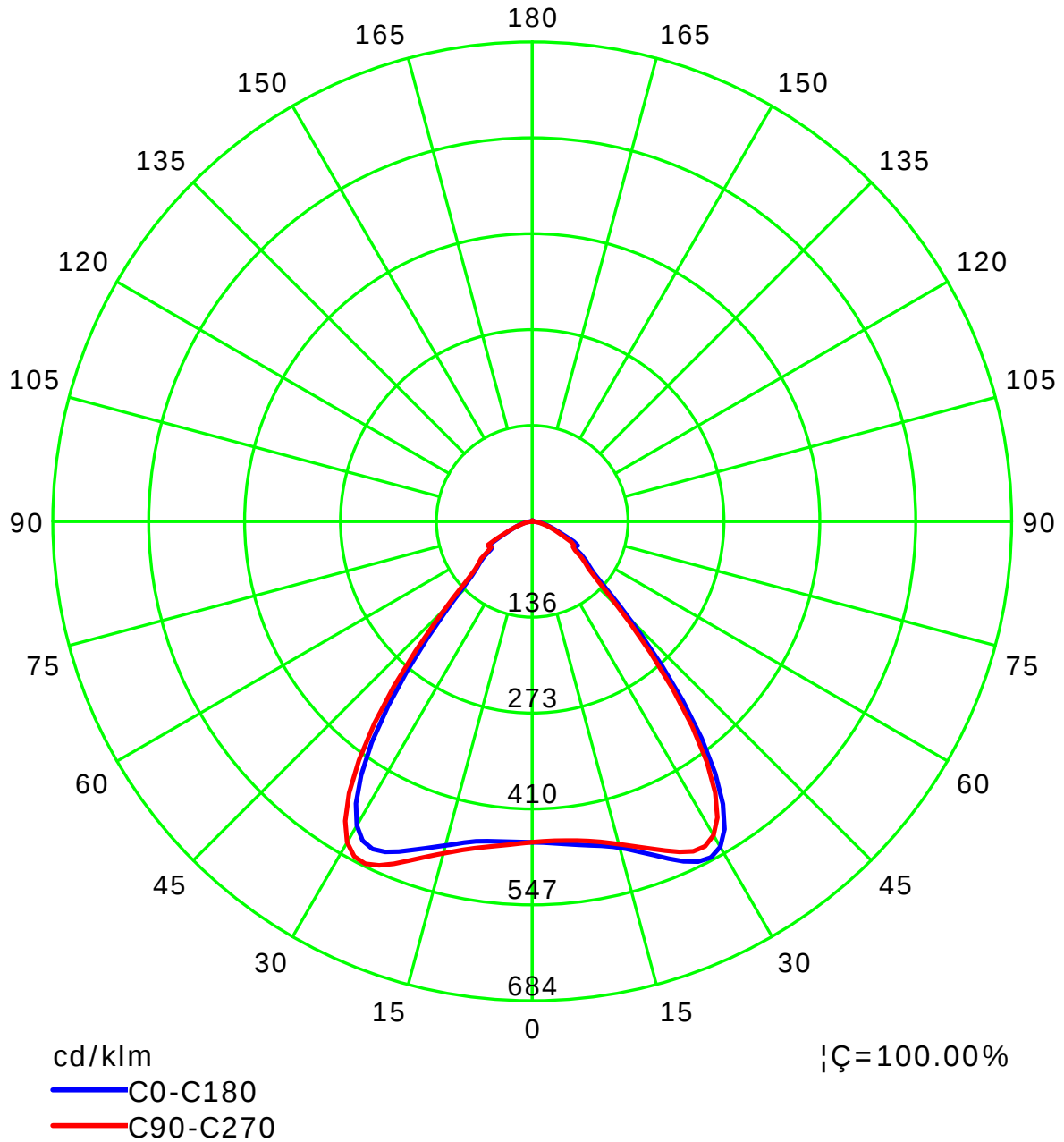
Luminous Intensity Distribution Curve



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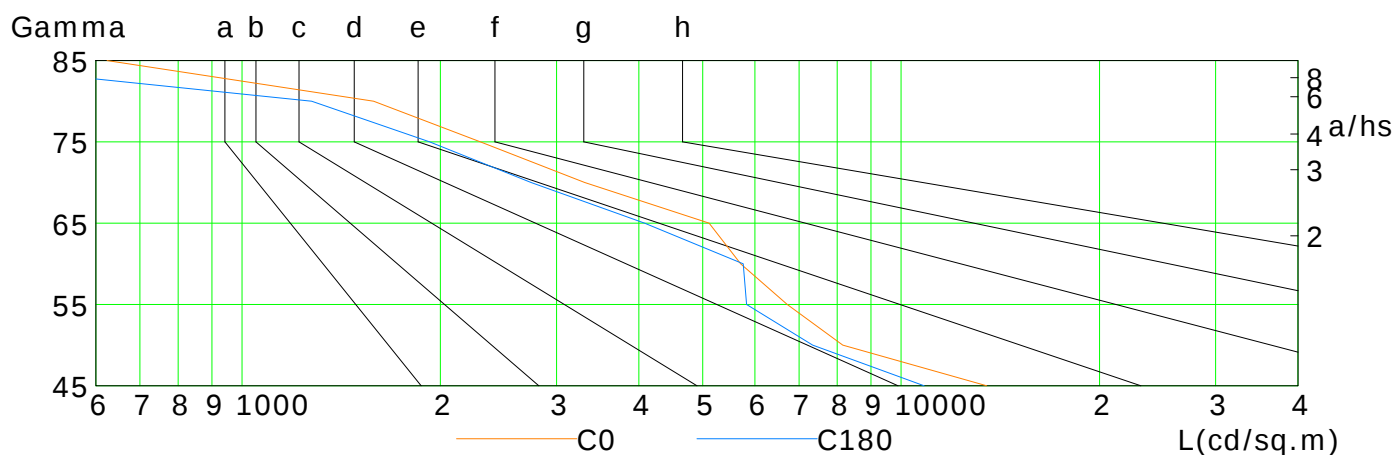
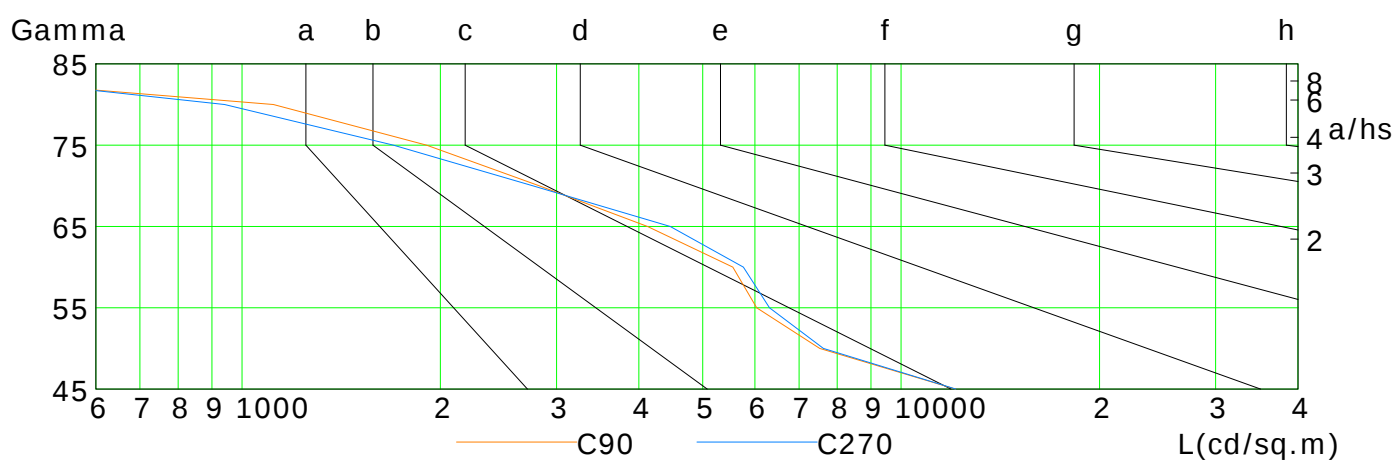
Luminous Intensity Distribution Curve(cd / klm)



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	13484	8156	6716	5708	5113	3312	2299	1583	624
C90	12088	7527	6037	5554	4122	2824	1906	1116	194
C180	10838	7343	5828	5760	4082	2746	1925	1276	322
C270	12104	7622	6312	5764	4462	2763	1698	941	255

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Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.0

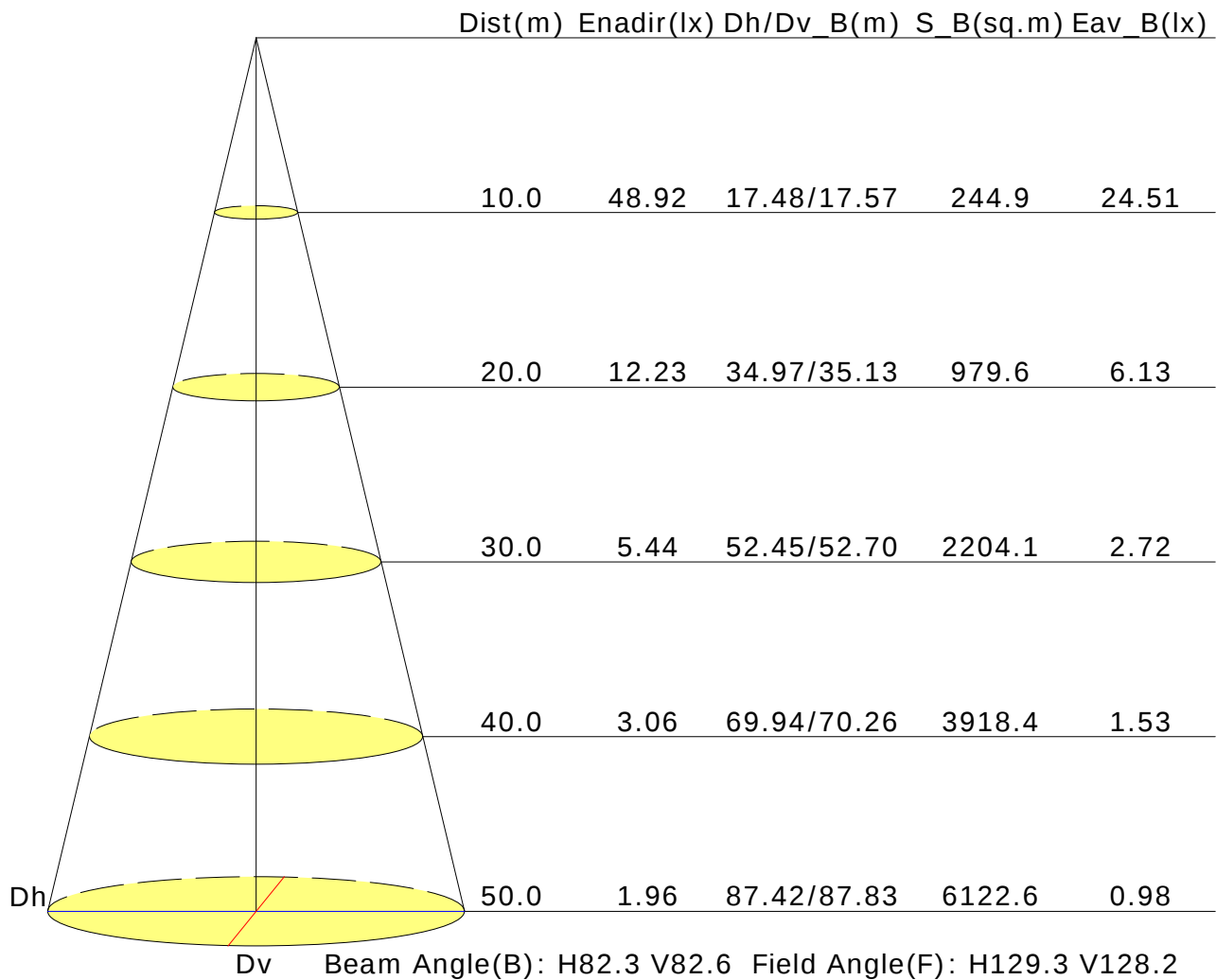
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

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	18.8	20.0	19.1	20.2	20.4	18.5	19.7	18.8	19.9	20.1
3H	19.3	20.3	19.6	20.6	20.8	18.9	20.0	19.2	20.2	20.5
4H	19.4	20.4	19.8	20.7	21.0	19.0	20.0	19.4	20.3	20.6
6H	19.5	20.4	19.9	20.7	21.0	19.1	20.0	19.4	20.3	20.6
8H	19.5	20.4	19.9	20.7	21.0	19.0	19.9	19.4	20.2	20.5
12H	19.5	20.3	19.9	20.6	21.0	19.0	19.8	19.4	20.2	20.5
X=4H Y=2H	18.9	19.9	19.2	20.2	20.4	18.6	19.6	19.0	19.9	20.2
3H	19.6	20.4	20.0	20.7	21.1	19.3	20.1	19.7	20.4	20.8
4H	19.9	20.6	20.3	21.0	21.3	19.5	20.2	19.9	20.6	21.0
6H	20.1	20.7	20.5	21.1	21.5	19.6	20.3	20.0	20.7	21.1
8H	20.1	20.7	20.5	21.1	21.5	19.6	20.2	20.1	20.6	21.0
12H	20.1	20.6	20.6	21.1	21.5	19.6	20.1	20.0	20.5	21.0
X=8H Y=4H	20.0	20.6	20.4	21.0	21.4	19.7	20.3	20.1	20.7	21.1
6H	20.3	20.8	20.8	21.2	21.7	19.9	20.3	20.3	20.8	21.2
8H	20.4	20.8	20.9	21.3	21.7	19.9	20.3	20.4	20.8	21.2
12H	20.4	20.8	20.9	21.2	21.8	19.9	20.2	20.4	20.7	21.2
X=12H Y=4H	20.0	20.5	20.4	20.9	21.4	19.7	20.2	20.1	20.6	21.1
6H	20.3	20.7	20.8	21.2	21.7	19.9	20.3	20.4	20.7	21.2
8H	20.4	20.8	20.9	21.2	21.7	19.9	20.3	20.4	20.7	21.3
Variations with the observer position at spacings:										
S=1.0H	+1.1/-1.3					+1.2/-1.4				
S=1.5H	+2.7/-1.7					+2.8/-1.7				
S=2.0H	+4.1/-2.3					+4.3/-2.5				

Calculate in accordance with CIE Pub.117. The table is revised with 10672lm ($8\log(F/F_0) = 8.2$).

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Temperature:

Operator:

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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	0.73	0.81	0.87	0.91	0.96	1.00	1.02	1.05	1.07	
	0.30		0.67	0.75	0.81	0.86	0.92	0.96	0.99	1.02	1.05	
	0.20		0.62	0.71	0.77	0.82	0.88	0.92	0.95	1.00	1.03	
0.50	0.50	0.20	0.71	0.79	0.84	0.88	0.93	0.96	0.99	1.02	1.03	
	0.30		0.66	0.74	0.80	0.84	0.89	0.93	0.96	0.99	1.01	
	0.20		0.62	0.70	0.76	0.80	0.86	0.90	0.93	0.97	0.99	
0.30	0.50	0.20	0.70	0.77	0.82	0.86	0.90	0.93	0.95	0.98	0.99	
	0.30		0.65	0.73	0.78	0.82	0.87	0.91	0.93	0.96	0.98	
	0.20		0.62	0.70	0.75	0.79	0.85	0.88	0.91	0.94	0.96	
0.00	0.00	0.00	0.60	0.67	0.73	0.76	0.81	0.85	0.87	0.90	0.92	
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 = 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	0.75	0.61	0.51	0.44	0.35	0.29	0.25	0.19	0.16	
	0.30		0.63	0.52	0.45	0.39	0.32	0.27	0.23	0.18	0.15	
	0.20		0.54	0.46	0.40	0.35	0.29	0.25	0.21	0.17	0.14	
0.50	0.50	0.20	0.72	0.58	0.49	0.42	0.33	0.31	0.23	0.18	0.14	
	0.30		0.61	0.50	0.43	0.38	0.30	0.25	0.22	0.17	0.14	
	0.20		0.53	0.45	0.39	0.34	0.28	0.23	0.20	0.16	0.13	
0.30	0.50	0.20	0.70	0.55	0.46	0.40	0.31	0.26	0.22	0.17	0.14	
	0.30		0.59	0.49	0.41	0.36	0.29	0.24	0.20	0.16	0.13	
	0.20		0.52	0.44	0.38	0.33	0.27	0.22	0.19	0.15	0.13	
0.00	0.00	0.00	0.40	0.32	0.27	0.23	0.19	0.15	0.13	0.10	0.08	
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 = 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	0.15	0.16	0.17	0.18	0.19	0.20	0.20	0.21	0.22	
	0.30		0.09	0.11	0.13	0.14	0.15	0.17	0.18	0.19	0.20	
	0.20		0.06	0.08	0.09	0.11	0.13	0.14	0.15	0.17	0.18	
0.50	0.50	0.20	0.14	0.15	0.16	0.17	0.18	0.19	0.19	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	0.16	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												