

Report No.: 1

Test Time: 25.02.2020 10:02

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FG 63 31W 4000K opal

Number of Lamps: 1

Luminous Width (mm): 63

Voltage: 221.0 V

Power: 31.43 W

Luminous Length (mm): 850

Luminous Height (mm): 40

Current: 0.149 A

Power Factor: 0.956

Photometric Results

CIE Class: Direct

Measurement Flux: 3405 lm

Downward Ratio: 99%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 159.0, 159.7, 159.7, 159.6

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 105.8, 103.4, 104.7, 104.7

Luminaire Efficacy Rating (LER): 108.39

Max. Intensity: 1287.99 cd

S/MH(C0/C180): 1.21

Total Rated Lamp Lumens: 3405.0 lm

Efficiency: 100%

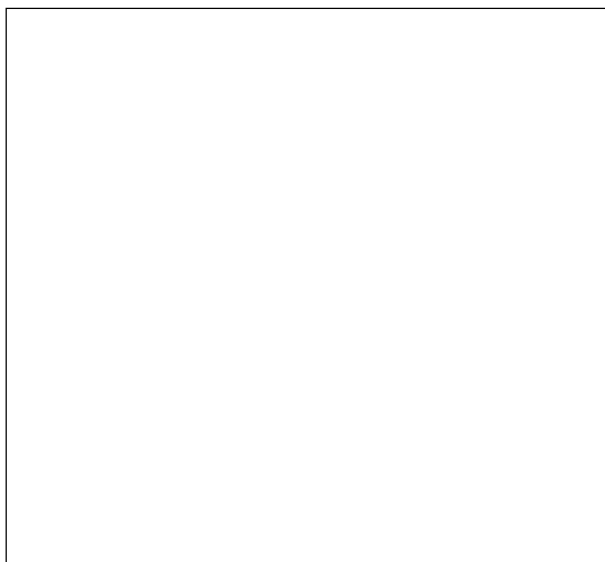
Upward Ratio: 1%

Central Intensity: 1286.86 cd

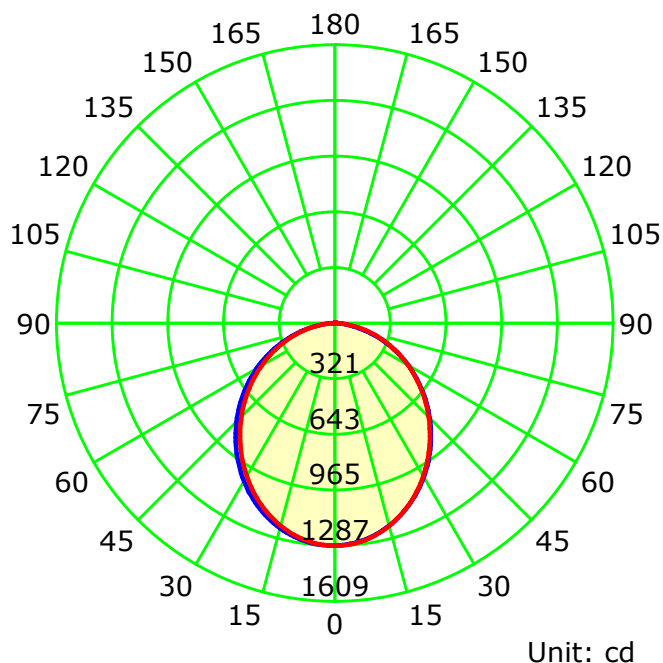
Pos of Max. Intensity: H90 V0

S/MH(C90/C270): 1.19

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 (°):0.0-180.0:1.0

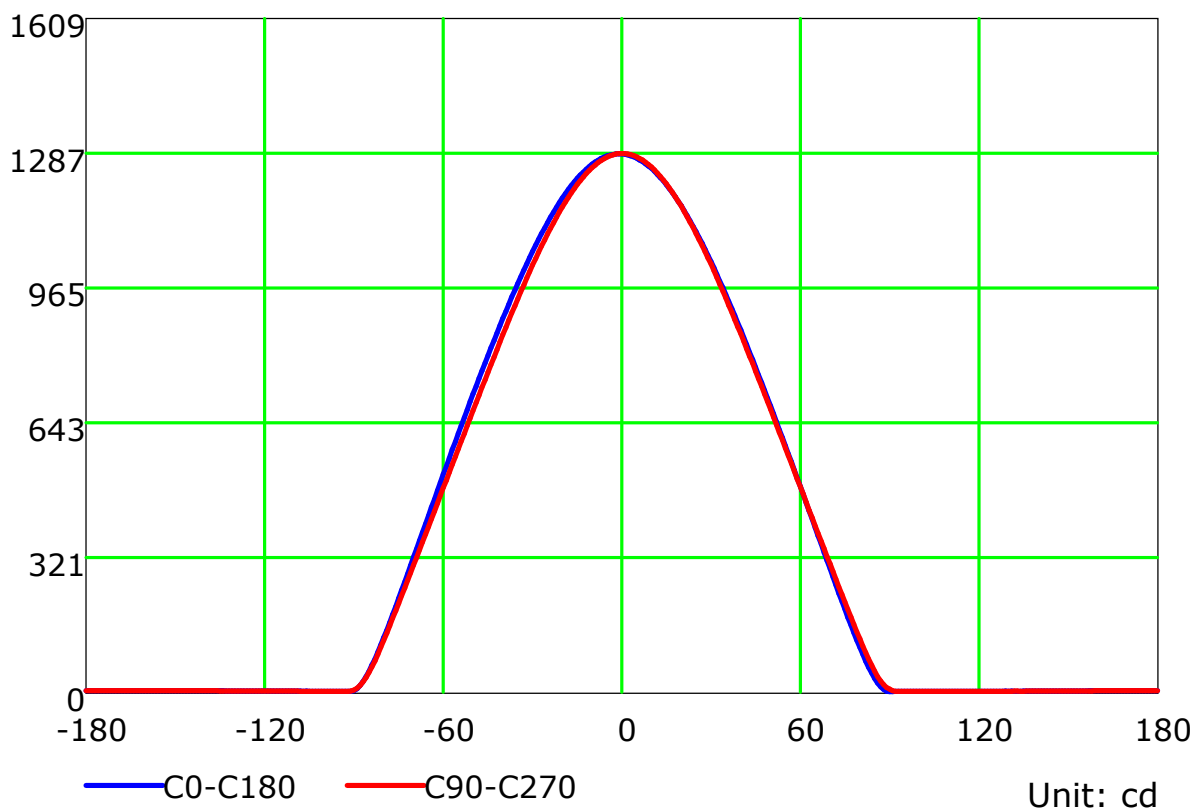
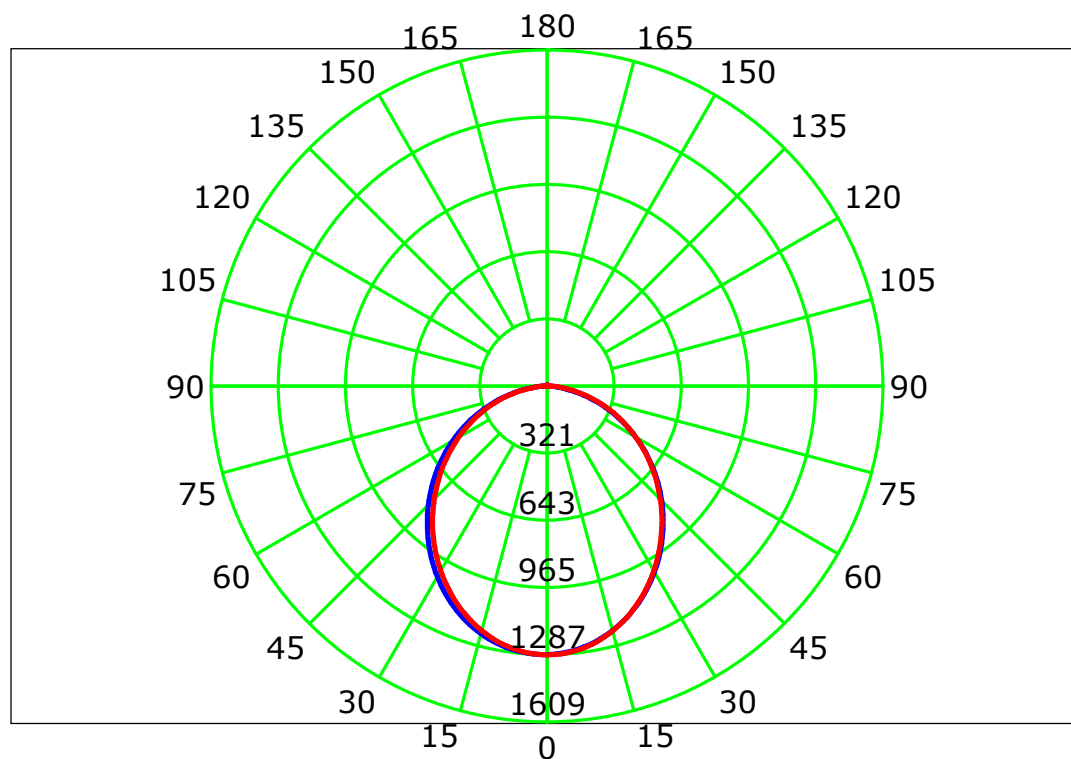
Test Device: LSG-1800B

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

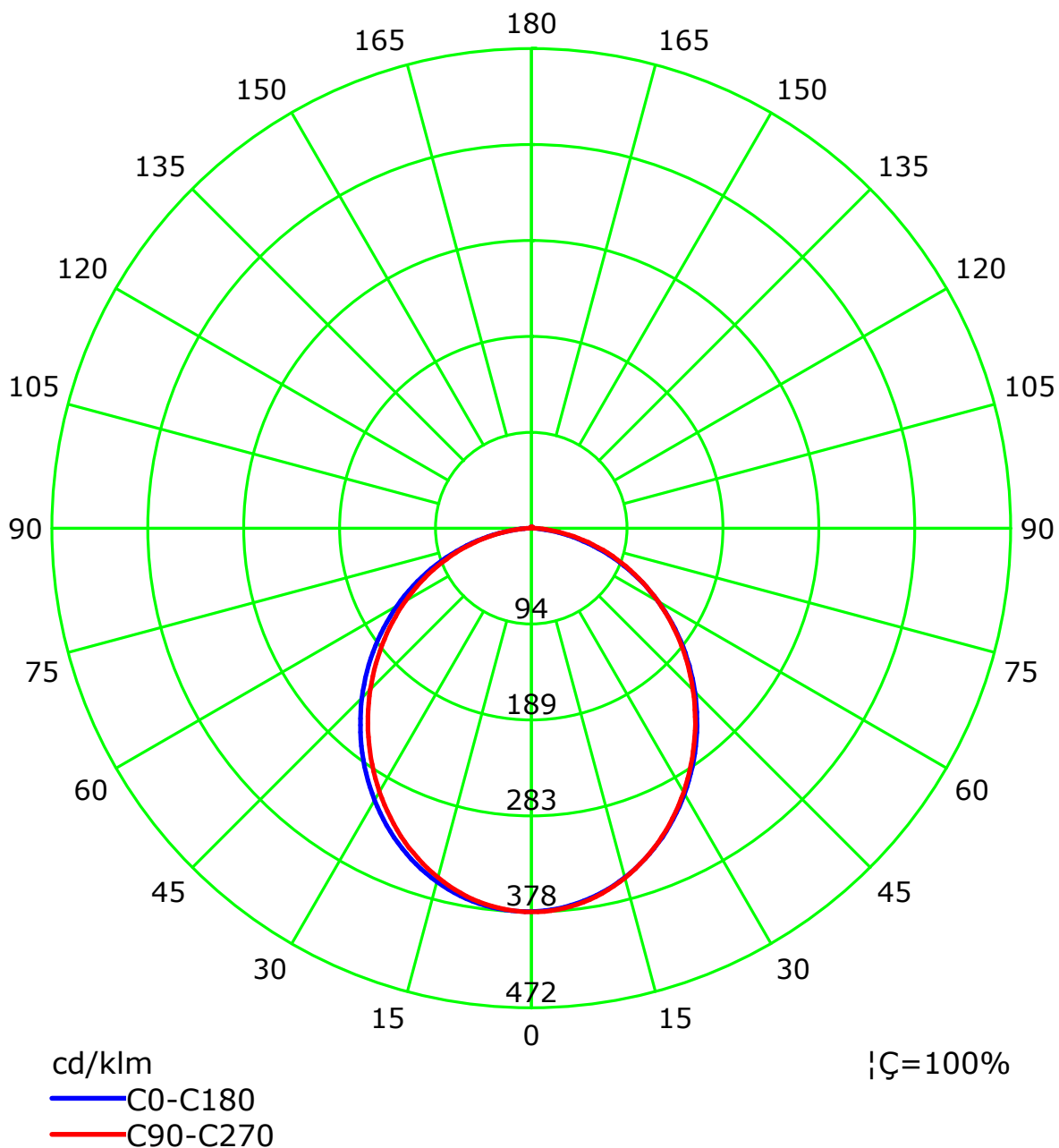
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

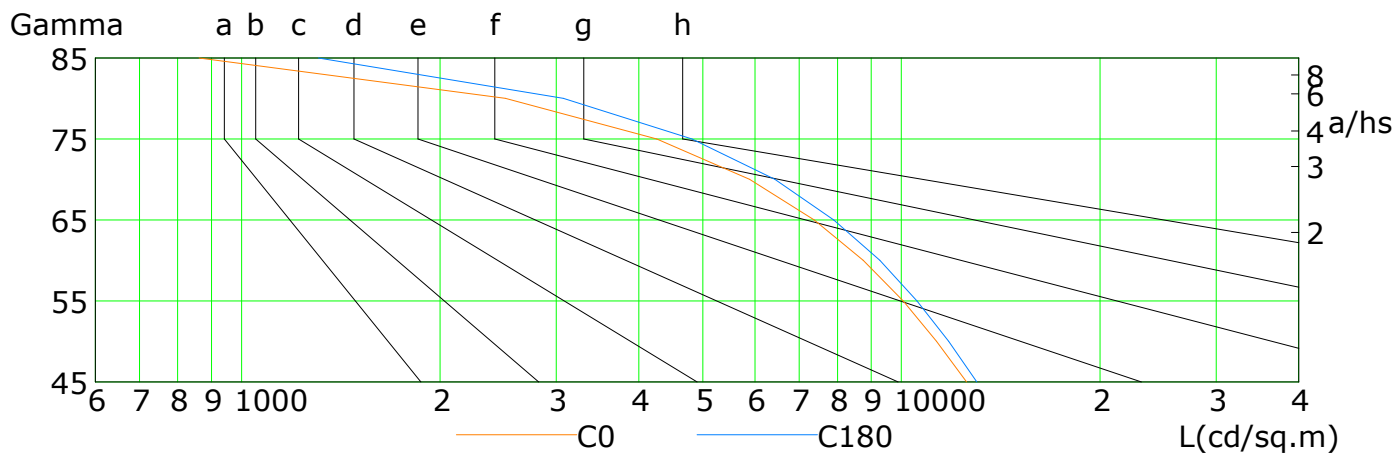
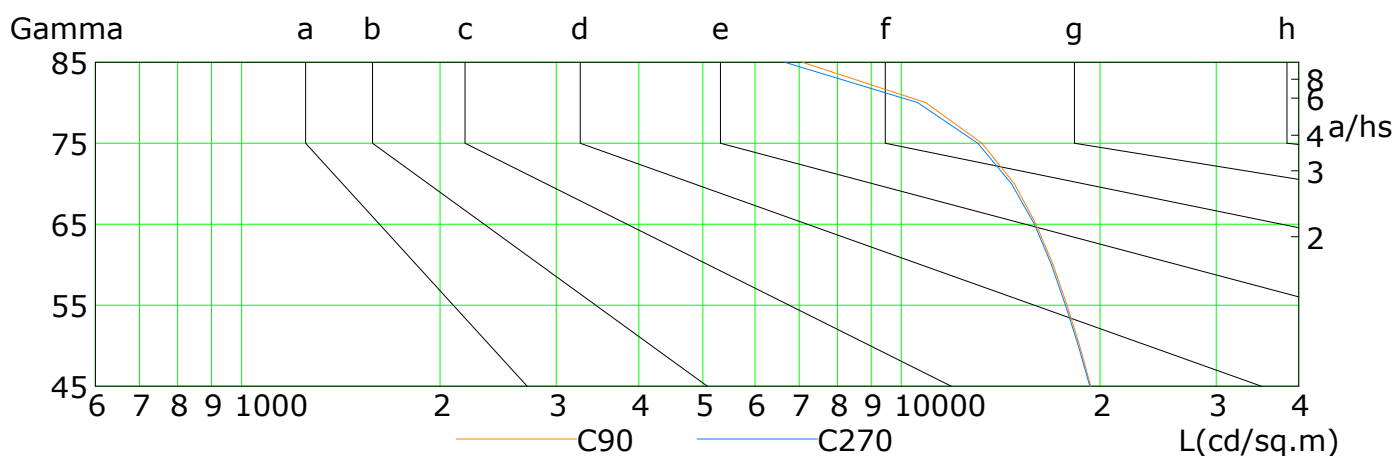
Luminous Intensity Distribution Curve(cd/klm)



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	12549	11309	10067	8754	7375	5888	4258	2511	863
C90	19361	18619	17825	16981	15989	14829	13243	10884	7079
C180	13004	11795	10556	9277	7898	6431	4817	3073	1307
C270	19308	18530	17735	16878	15900	14687	13056	10579	6654

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

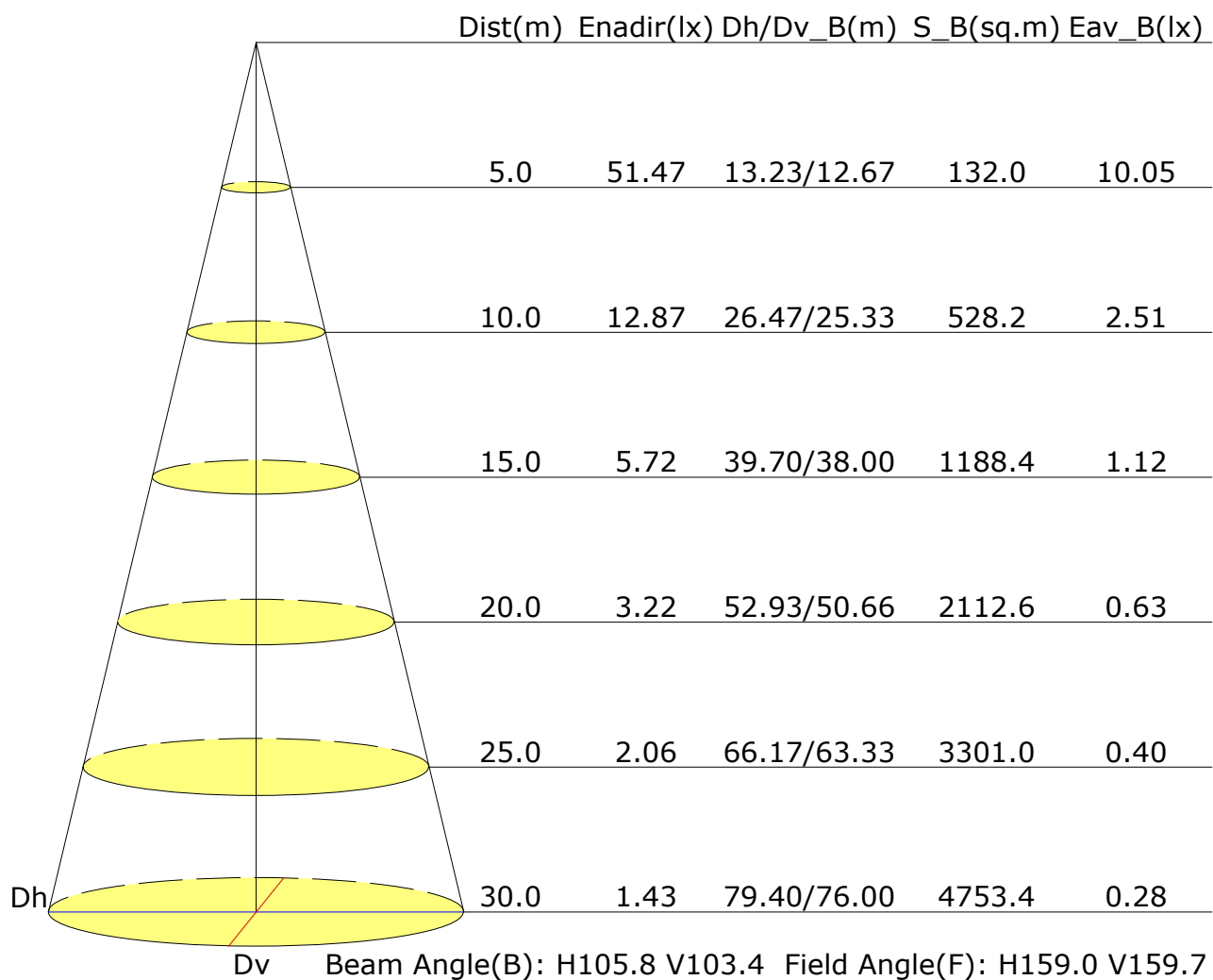
Test Device: LSG-1800B

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	20.6	21.9	20.9	22.2	22.4	21.7	23.0	22.0	23.3	23.5
3H	21.6	22.9	22.0	23.2	23.4	23.1	24.4	23.5	24.7	25.0
4H	22.0	23.1	22.3	23.4	23.8	23.7	24.9	24.1	25.2	25.5
6H	22.1	23.2	22.5	23.5	23.9	24.1	25.2	24.5	25.5	25.9
8H	22.1	23.2	22.5	23.5	23.9	24.2	25.3	24.6	25.6	25.9
12H	22.1	23.1	22.5	23.5	23.8	24.3	25.3	24.7	25.6	26.0
X=4H Y=2H	21.2	22.3	21.5	22.6	22.9	22.1	23.2	22.4	23.5	23.9
3H	22.4	23.4	22.8	23.8	24.1	23.7	24.7	24.1	25.0	25.4
4H	22.8	23.7	23.3	24.1	24.5	24.4	25.3	24.8	25.6	26.0
6H	23.1	23.9	23.5	24.3	24.7	24.8	25.6	25.3	26.0	26.4
8H	23.1	23.8	23.6	24.3	24.7	25.0	25.7	25.4	26.1	26.6
12H	23.1	23.8	23.6	24.2	24.7	25.1	25.7	25.5	26.2	26.6
X=8H Y=4H	23.1	23.8	23.5	24.2	24.6	24.5	25.2	24.9	25.6	26.0
6H	23.4	24.0	23.9	24.4	24.9	25.0	25.6	25.5	26.1	26.5
8H	23.4	24.0	23.9	24.4	24.9	25.2	25.7	25.7	26.2	26.7
12H	23.5	23.9	24.0	24.4	24.9	25.3	25.8	25.8	26.3	26.8
X=12H Y=4H	23.1	23.7	23.5	24.2	24.6	24.4	25.1	24.9	25.5	26.0
6H	23.4	23.9	23.9	24.4	24.9	25.0	25.5	25.5	26.0	26.5
8H	23.5	23.9	24.0	24.4	24.9	25.2	25.7	25.7	26.2	26.7
Variations with the observer position at spacings:										
S=1.0H	+0.2/-0.3					+0.1/-0.1				
S=1.5H	+0.4/-0.7					+0.3/-0.4				
S=2.0H	+0.7/-1.3					+0.8/-1.1				

Calculate in accordance with CIE Pub.117. The table is revised with 3405lm ($8\log(F/F_0) = 4.3$).

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:

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	0.58	0.68	0.75	0.80	0.88	0.93	0.96	1.01	1.03	
	0.30		0.50	0.60	0.68	0.73	0.82	0.87	0.91	0.96	1.00	
	0.20		0.44	0.55	0.62	0.68	0.76	0.82	0.87	0.93	0.97	
0.50	0.50	0.20	0.56	0.66	0.73	0.78	0.84	0.89	0.92	0.96	0.99	
	0.30		0.49	0.59	0.66	0.72	0.79	0.84	0.88	0.93	0.96	
	0.20		0.44	0.54	0.61	0.67	0.75	0.80	0.85	0.90	0.94	
0.30	0.50	0.20	0.54	0.64	0.70	0.75	0.81	0.86	0.89	0.93	0.95	
	0.30		0.48	0.58	0.65	0.70	0.77	0.82	0.85	0.90	0.93	
	0.20		0.44	0.53	0.60	0.66	0.73	0.79	0.82	0.87	0.91	
0.00	0.00	0.00	0.41	0.51	0.58	0.63	0.70	0.75	0.78	0.83	0.86	
Rating:31W 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	0.98	0.81	0.69	0.60	0.48	0.40	0.34	0.26	0.21	
	0.30		0.82	0.69	0.60	0.53	0.43	0.36	0.31	0.25	0.20	
	0.20		0.70	0.60	0.53	0.48	0.39	0.34	0.29	0.23	0.19	
0.50	0.50	0.20	0.95	0.78	0.66	0.57	0.46	0.41	0.32	0.25	0.20	
	0.30		0.80	0.67	0.58	0.51	0.42	0.35	0.30	0.24	0.19	
	0.20		0.69	0.60	0.52	0.47	0.38	0.33	0.28	0.22	0.19	
0.30	0.50	0.20	0.92	0.75	0.63	0.55	0.44	0.36	0.31	0.24	0.19	
	0.30		0.78	0.66	0.57	0.50	0.40	0.34	0.29	0.23	0.19	
	0.20		0.69	0.59	0.51	0.46	0.37	0.32	0.27	0.22	0.18	
0.00	0.00	0.00	0.58	0.49	0.42	0.37	0.30	0.25	0.21	0.17	0.14	
Rating:31W 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	0.20	0.21	0.21	0.22	0.22	
	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	0.16	0.17	0.18	0.19	0.20	0.20	0.21	0.21	0.21	
	0.30		0.10	0.11	0.13	0.14	0.15	0.16	0.17	0.18	0.19	
	0.20		0.05	0.07	0.08	0.10	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	0.19	0.20	0.20	0.20	
	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:31W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												