

Report No.: 1

Test Time: 01.11.2019 18:50

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FG 180 4x24LED 0,4A 20,5W 3000K opal

Luminous Length (mm): 1200

Luminous Width (mm): 180

Luminous Height (mm): 35

Voltage: 220.8 V

Current: 0.096 A

Power: 20.50 W

Power Factor: 0.964

Photometric Results

CIE Class: Direct

Measurement Flux: 1877.3 lm

Downward Ratio: 99%

Total Rated Lamp Lumens: 1877.3 lm

Efficiency: 100%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 165.5, 164.6, 164.9, 164.8

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 114.0, 113.6, 113.8, 113.9

Luminaire Efficacy Rating (LER): 91.63

Central Intensity: 631.52 cd

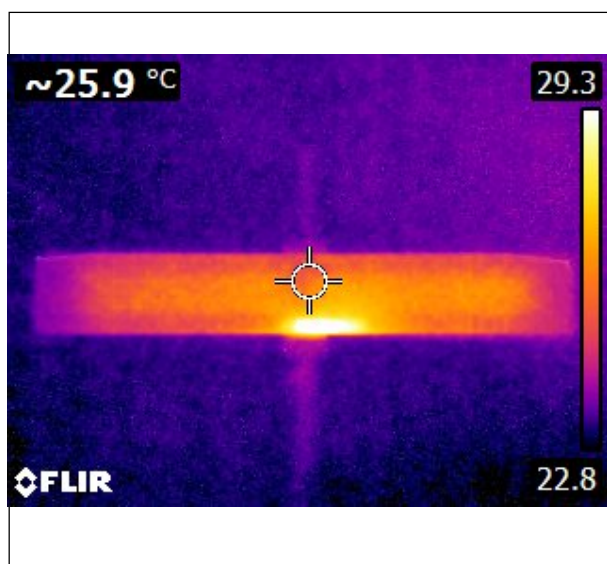
Max. Intensity: 635.7 cd

Pos of Max. Intensity: H135 V3

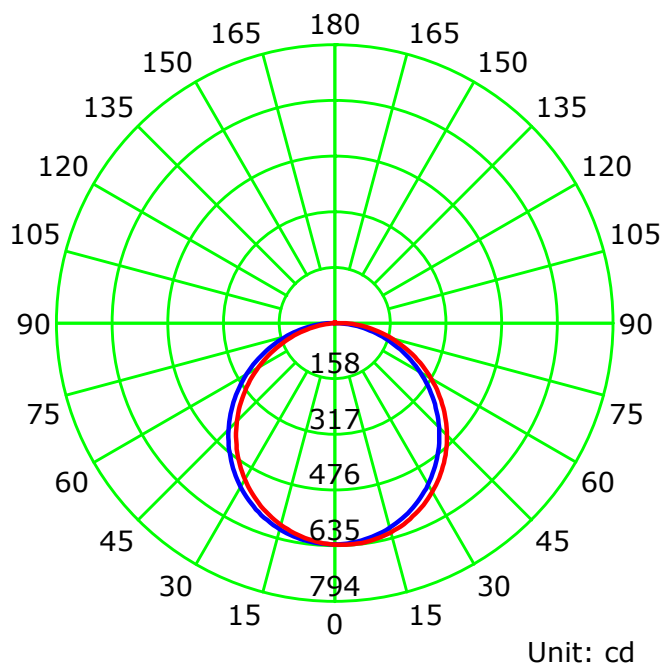
S/MH(C0/C180): 1.26

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

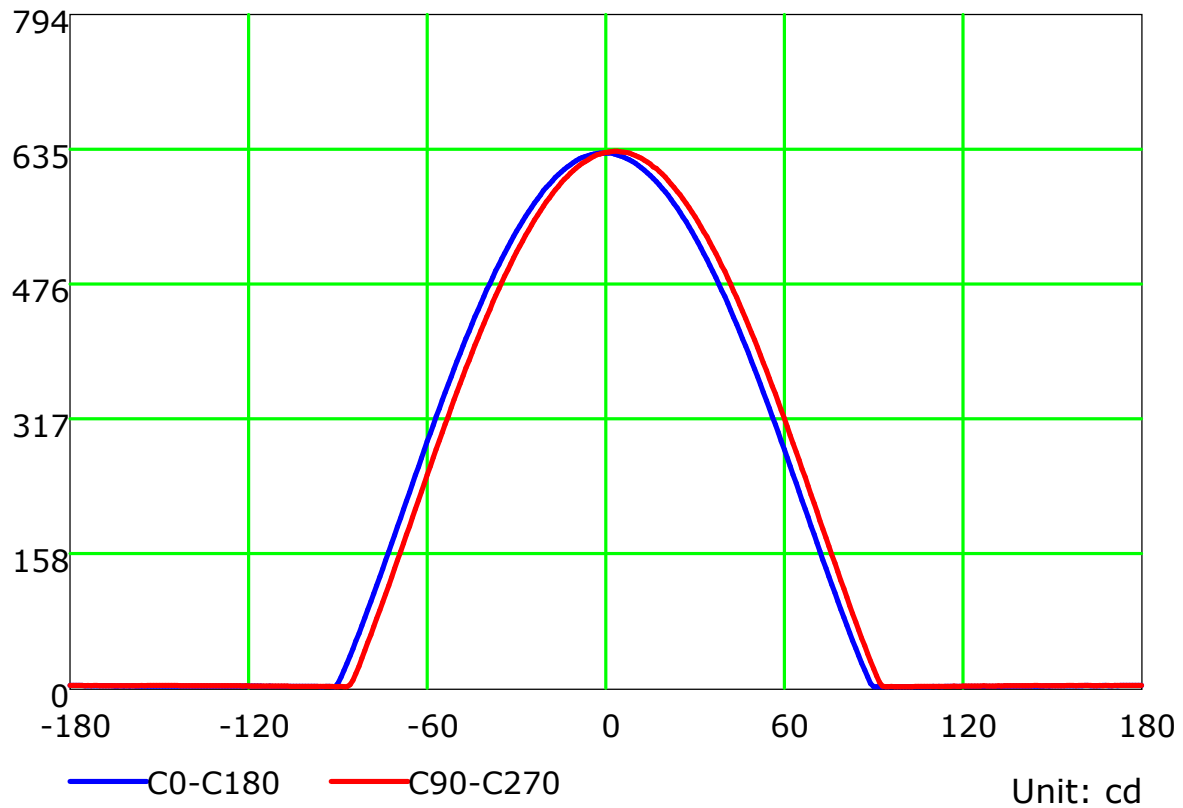
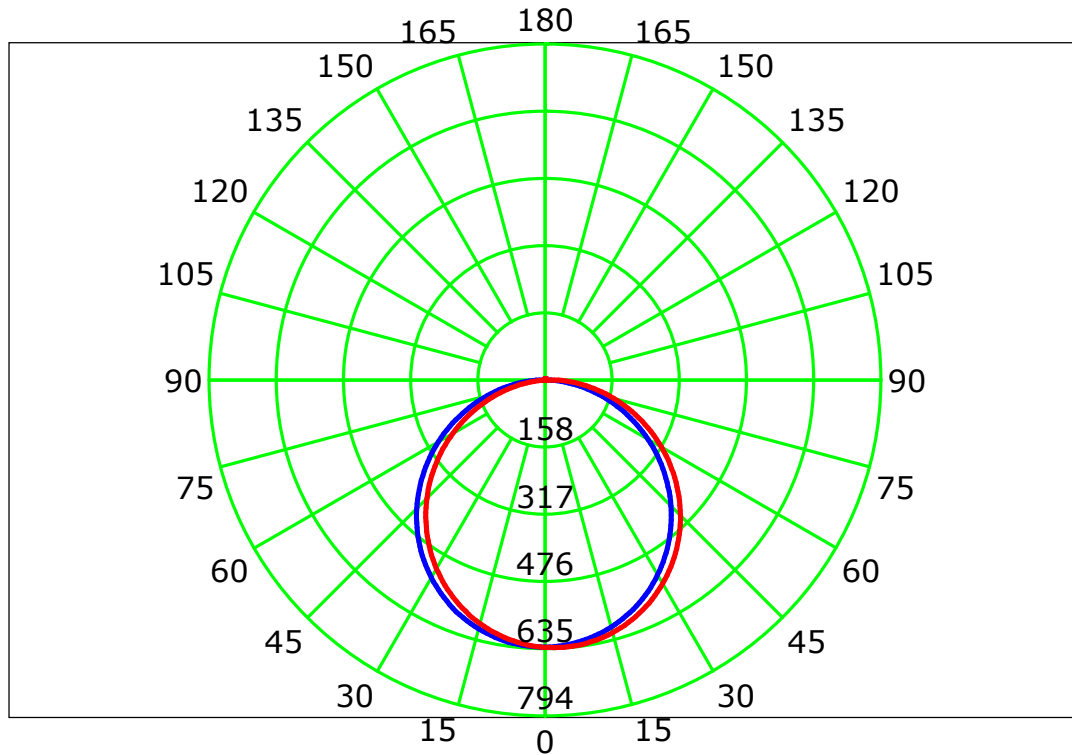
Test Device: LSG-1800B

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

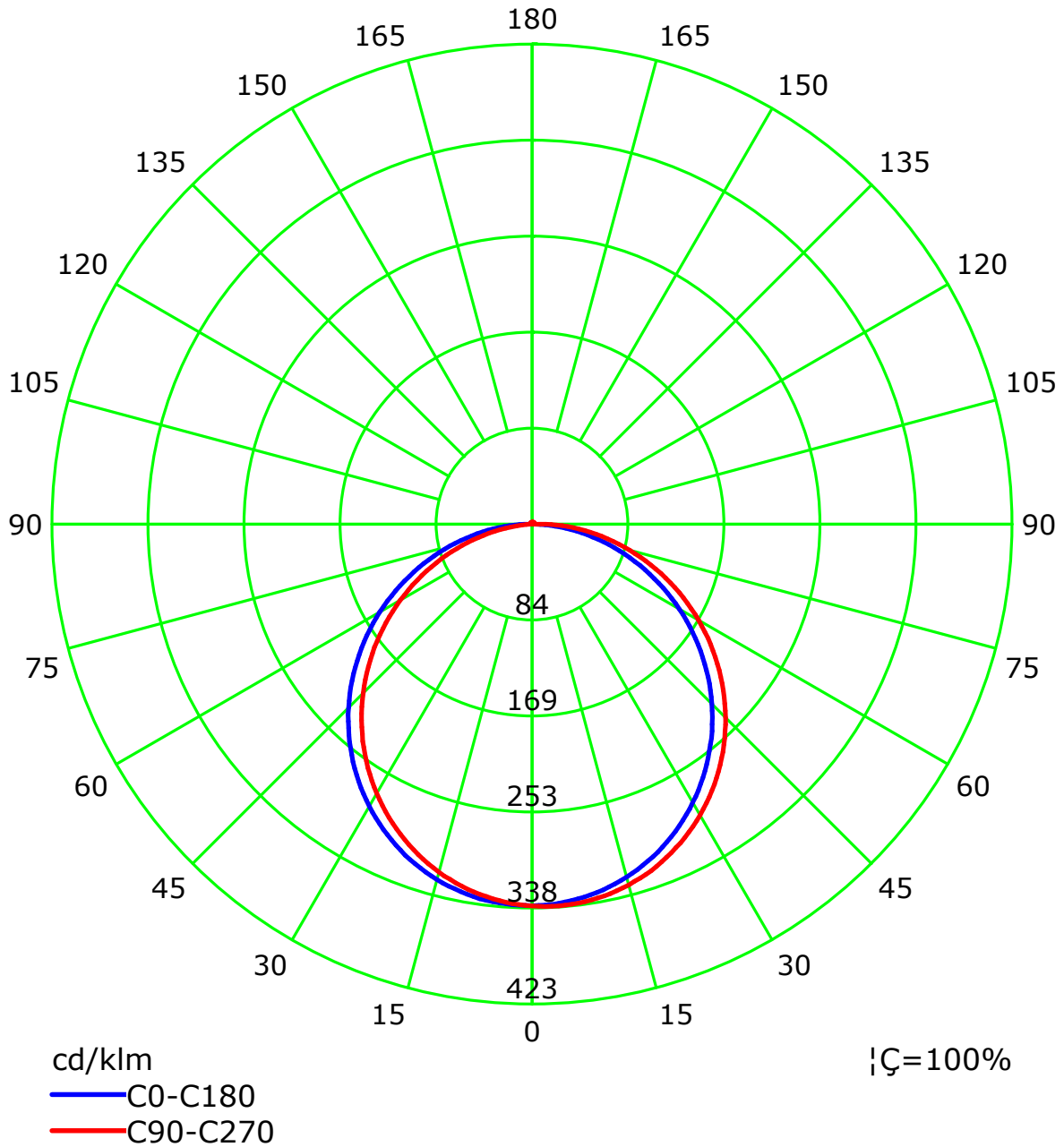
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

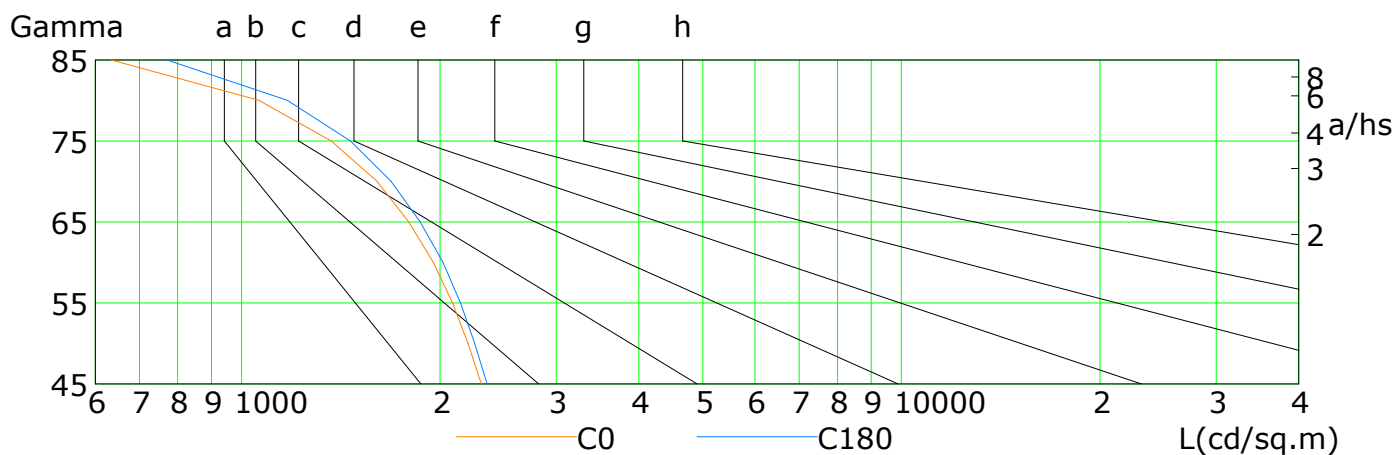
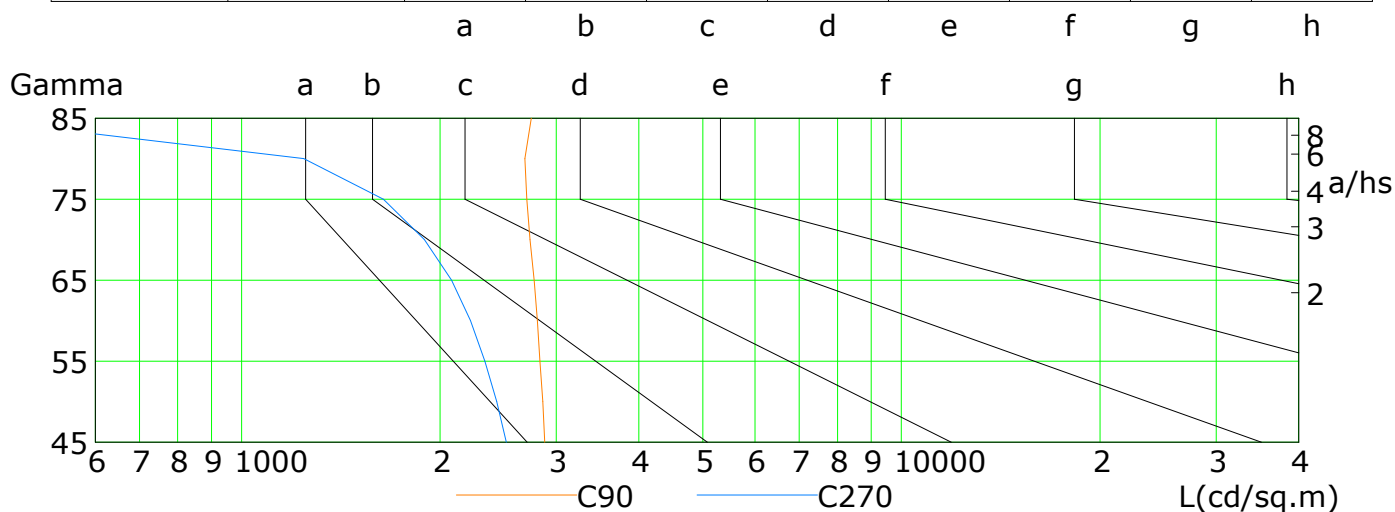
Inspector:

Luminous Intensity Distribution Curve(cd/klm)



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

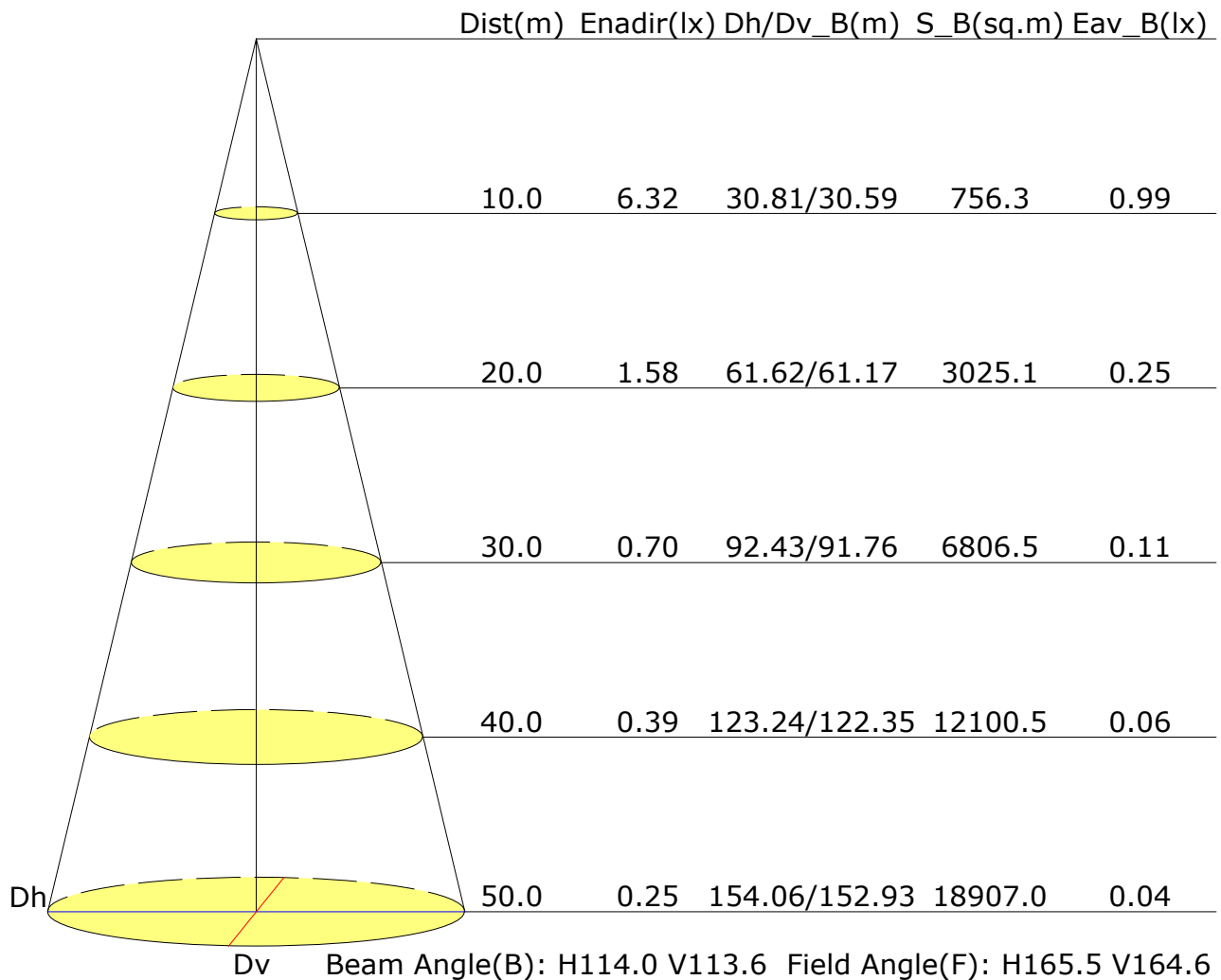


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	2308	2202	2088	1952	1792	1603	1367	1063	635
C90	2882	2860	2833	2807	2775	2737	2707	2687	2749
C180	2356	2256	2147	2019	1866	1685	1463	1174	771
C270	2518	2435	2338	2222	2080	1893	1641	1243	382

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	15.1	16.5	15.4	16.7	17.0	15.6	17.0	15.9	17.2	17.5
3H	16.5	17.8	16.9	18.1	18.4	17.2	18.5	17.6	18.8	19.1
4H	17.1	18.3	17.4	18.6	18.9	17.9	19.1	18.3	19.4	19.8
6H	17.4	18.6	17.8	18.9	19.2	18.5	19.6	18.9	19.9	20.3
8H	17.6	18.6	17.9	19.0	19.3	18.7	19.8	19.1	20.1	20.5
12H	17.6	18.6	18.0	19.0	19.4	18.8	19.9	19.2	20.2	20.6
X=4H Y=2H	15.8	17.0	16.1	17.3	17.6	16.2	17.4	16.5	17.7	18.0
3H	17.4	18.4	17.8	18.8	19.1	18.0	19.0	18.4	19.4	19.7
4H	18.0	19.0	18.5	19.4	19.7	18.8	19.7	19.2	20.1	20.5
6H	18.5	19.4	19.0	19.8	20.2	19.5	20.3	19.9	20.7	21.1
8H	18.7	19.5	19.1	19.9	20.3	19.7	20.5	20.2	20.9	21.4
12H	18.8	19.5	19.2	19.9	20.4	20.0	20.6	20.4	21.1	21.5
X=8H Y=4H	18.3	19.1	18.8	19.5	20.0	19.0	19.8	19.5	20.2	20.6
6H	19.0	19.6	19.5	20.0	20.5	19.8	20.5	20.3	20.9	21.4
8H	19.2	19.7	19.7	20.2	20.7	20.2	20.7	20.7	21.2	21.7
12H	19.3	19.8	19.8	20.3	20.8	20.5	21.0	21.0	21.4	22.0
X=12H Y=4H	18.4	19.1	18.8	19.5	20.0	19.0	19.7	19.5	20.2	20.6
6H	19.0	19.6	19.5	20.1	20.6	19.9	20.4	20.4	20.9	21.4
8H	19.3	19.8	19.8	20.3	20.8	20.3	20.7	20.8	21.2	21.7
Variations with the observer position at spacings:										
S=1.0H	+0.2/-0.2					+0.3/-0.2				
S=1.5H	+0.3/-0.5					+0.5/-0.6				
S=2.0H	+0.5/-0.9					+0.6/-1.1				

Calculate in accordance with CIE Pub.117. The table is revised with 1877lm ($8\log(F/F_0) = 2.2$).

C Plane (°):0.0-360.0: 22.5
 Test Lab:
 Test Type: TYPE C
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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	0.55	0.66	0.73	0.78	0.86	0.91	0.95	0.99	1.02	
	0.30		0.47	0.58	0.65	0.71	0.79	0.85	0.89	0.95	0.99	
	0.20		0.42	0.52	0.60	0.65	0.74	0.80	0.85	0.91	0.95	
0.50	0.50	0.20	0.54	0.63	0.70	0.75	0.82	0.87	0.91	0.95	0.98	
	0.30		0.46	0.57	0.64	0.69	0.77	0.82	0.86	0.91	0.95	
	0.20		0.41	0.51	0.59	0.64	0.72	0.78	0.82	0.88	0.92	
0.30	0.50	0.20	0.52	0.61	0.68	0.73	0.79	0.84	0.87	0.91	0.94	
	0.30		0.46	0.55	0.62	0.68	0.75	0.80	0.83	0.88	0.91	
	0.20		0.41	0.51	0.58	0.63	0.71	0.76	0.80	0.86	0.89	
0.00	0.00	0.00	0.38	0.48	0.55	0.60	0.67	0.72	0.76	0.81	0.84	
Rating:21W 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	0.54	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	0.42	0.36	0.31	0.24	0.20	
	0.20		0.71	0.61	0.54	0.48	0.39	0.33	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:21W 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	0.19	0.20	0.20	0.21	0.22	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	0.09	0.10	0.12	0.13	0.15	0.16	0.18	
0.50	0.50	0.20	0.17	0.18	0.19	0.19	0.20	0.21	0.21	0.22	0.22	
	0.30		0.10	0.12	0.13	0.14	0.15	0.17	0.17	0.19	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	0.16	0.17	0.18	0.19	0.19	0.20	0.20	0.21	0.21	
	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	0.15	0.17	
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:21W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												