

Report No.: 1

Test Time: 07.11.2019 18:09

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FG 180 4x18LED 0,35A 20W 3000K microprisma

Luminous Length (mm): 1200

Luminous Width (mm): 180

Luminous Height (mm): 35

Voltage: 222.0 V

Current: 0.100 A

Power: 21.68 W

Power Factor: 0.973

Photometric Results

CIE Class: Direct

Measurement Flux: 2407.9 lm

Downward Ratio: 99%

Total Rated Lamp Lumens: 2407.9 lm

Efficiency: 100%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 159.5, 162.0, 149.4, 148.6

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 78.6, 79.4, 76.4, 76.4

Luminaire Efficacy Rating (LER): 111.12

Central Intensity: 1237.47 cd

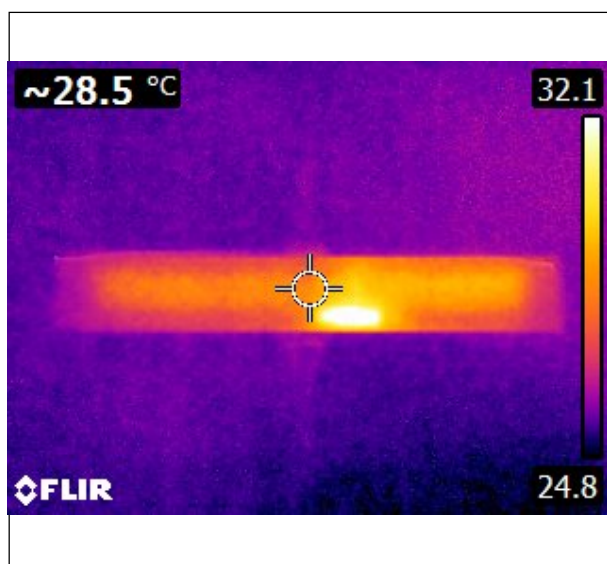
Max. Intensity: 1242.54 cd

Pos of Max. Intensity: H90 V4

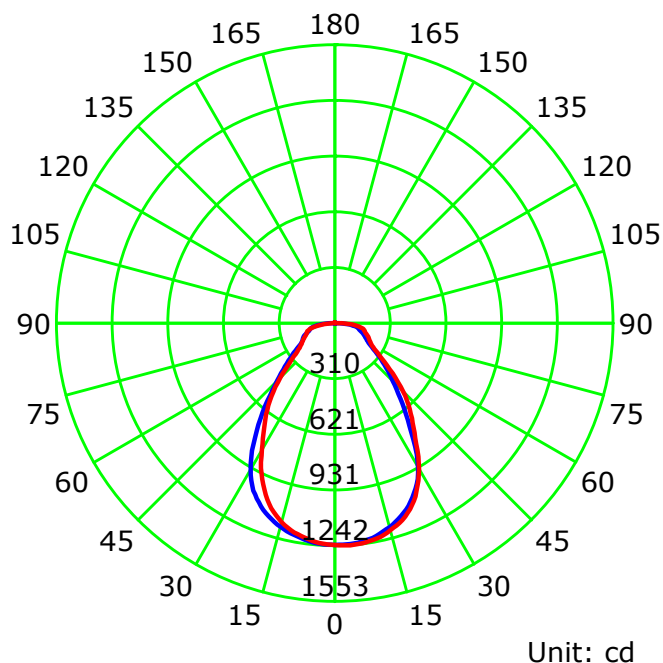
S/MH(C0/C180): 1.14

S/MH(C90/C270): 1.09

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

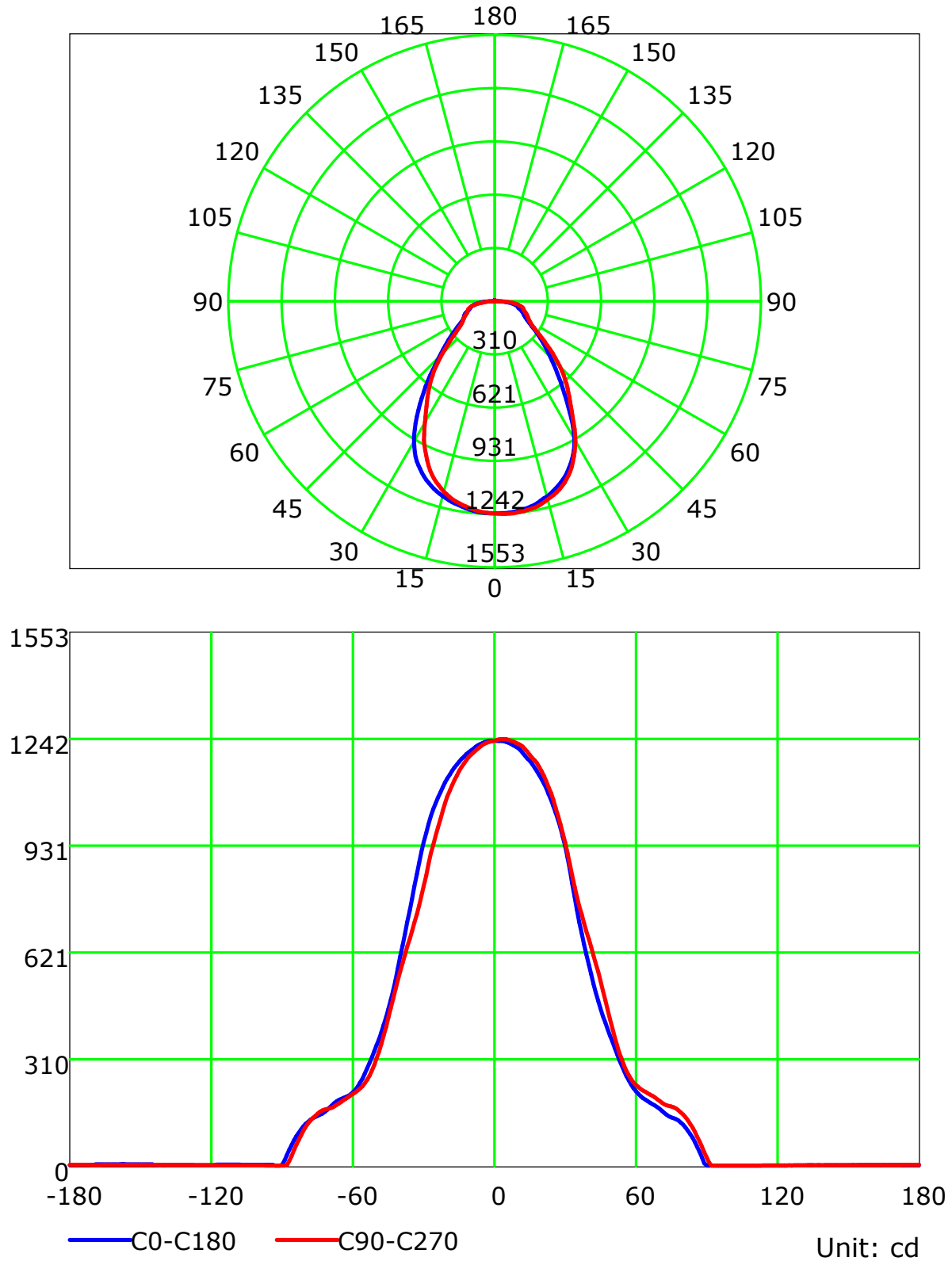
Test Device: LSG-1800B

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

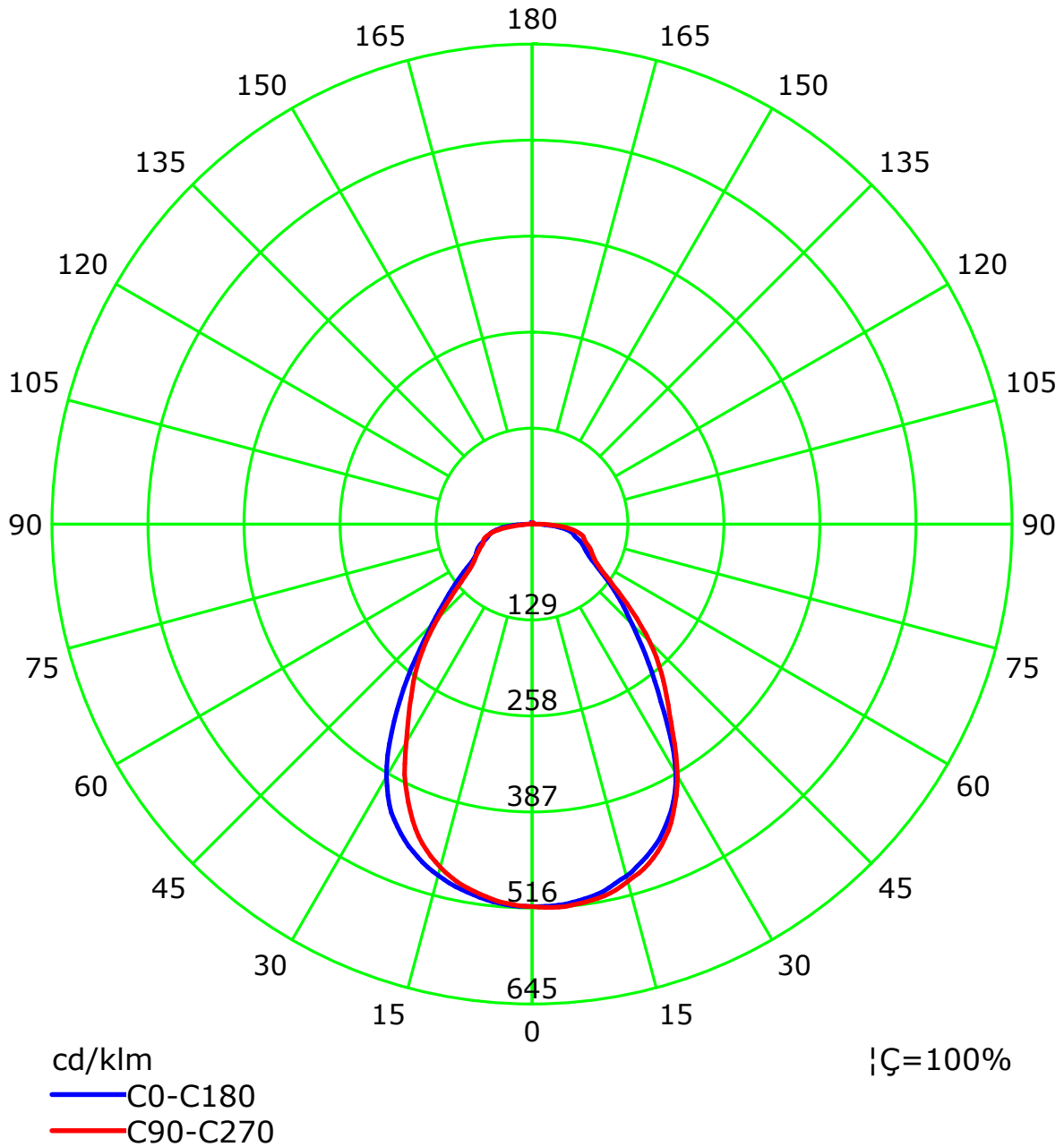
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

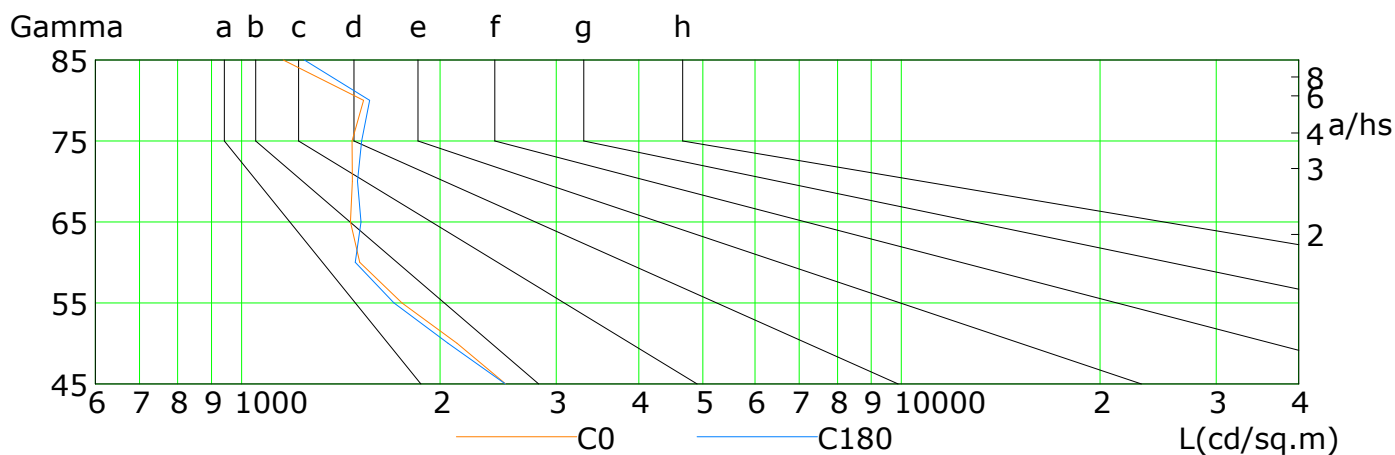
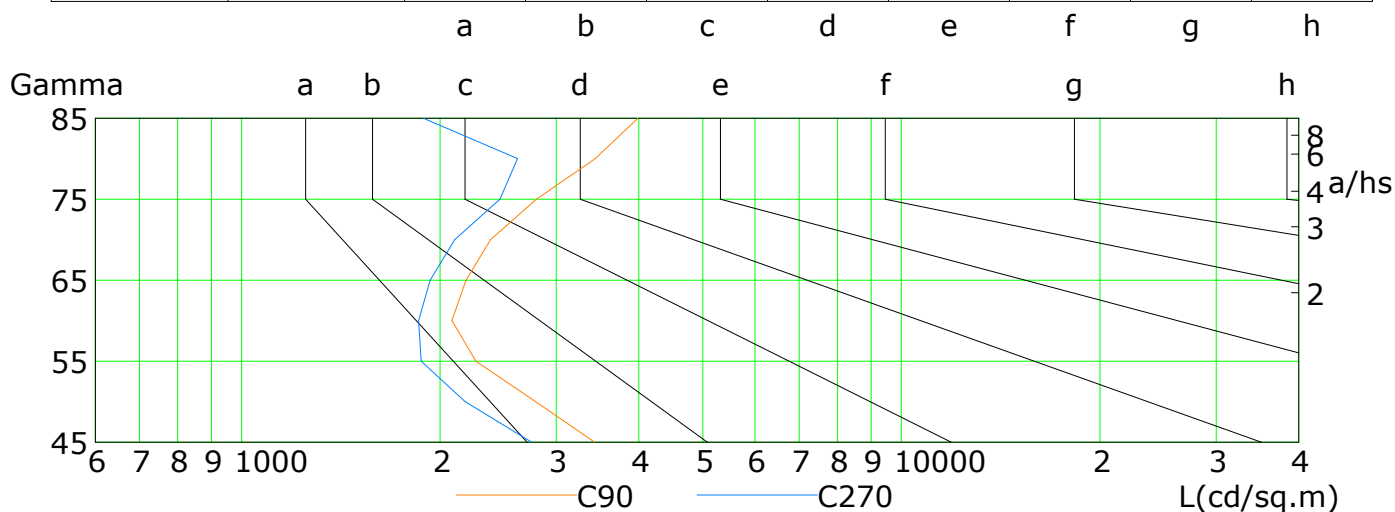
Inspector:

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

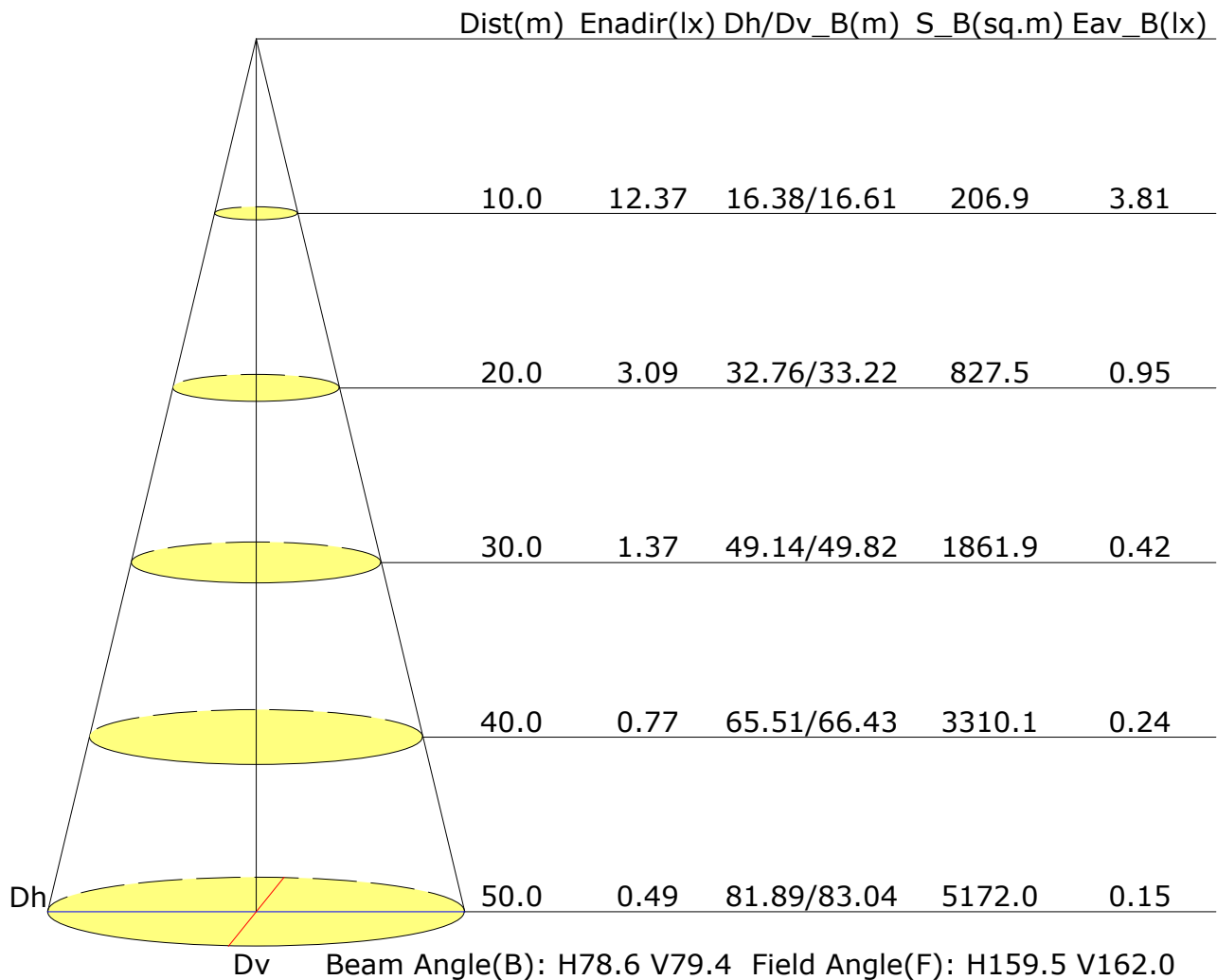


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	2513	2121	1750	1511	1462	1473	1471	1530	1156
C90	3427	2789	2267	2084	2189	2384	2799	3436	3989
C180	2510	2055	1702	1488	1517	1498	1521	1563	1246
C270	2751	2182	1871	1856	1931	2104	2464	2619	1886

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	13.7	14.9	14.0	15.1	15.4	14.1	15.3	14.4	15.6	15.8
3H	15.0	16.1	15.3	16.4	16.7	15.7	16.8	16.0	17.1	17.4
4H	15.7	16.7	16.0	17.0	17.3	16.7	17.8	17.1	18.1	18.4
6H	16.4	17.4	16.8	17.8	18.1	17.8	18.8	18.2	19.1	19.5
8H	16.8	17.7	17.1	18.0	18.4	18.3	19.3	18.7	19.6	19.9
12H	17.0	17.9	17.4	18.2	18.6	18.7	19.6	19.1	20.0	20.3
X=4H Y=2H	14.1	15.2	14.5	15.5	15.8	14.5	15.5	14.8	15.8	16.2
3H	15.7	16.6	16.1	17.0	17.3	16.3	17.3	16.7	17.6	18.0
4H	16.6	17.4	17.0	17.8	18.1	17.5	18.4	18.0	18.7	19.1
6H	17.5	18.2	17.9	18.6	19.0	18.8	19.6	19.3	20.0	20.4
8H	17.9	18.6	18.3	19.0	19.4	19.4	20.1	19.9	20.5	20.9
12H	18.2	18.8	18.6	19.2	19.7	19.9	20.5	20.3	20.9	21.4
X=8H Y=4H	16.9	17.6	17.3	18.0	18.4	17.8	18.5	18.2	18.9	19.3
6H	18.0	18.5	18.5	19.0	19.5	19.3	19.8	19.7	20.3	20.7
8H	18.5	19.0	19.0	19.4	19.9	19.9	20.4	20.4	20.9	21.4
12H	18.9	19.3	19.4	19.8	20.3	20.5	20.9	21.0	21.4	21.9
X=12H Y=4H	17.0	17.6	17.4	18.0	18.5	17.8	18.4	18.3	18.9	19.3
6H	18.1	18.6	18.6	19.1	19.6	19.3	19.8	19.8	20.3	20.8
8H	18.6	19.1	19.1	19.6	20.1	20.0	20.5	20.5	20.9	21.5
Variations with the observer position at spacings:										
S=1.0H	+0.3/-0.3					+0.3/-0.3				
S=1.5H	+0.4/-0.7					+0.3/-0.7				
S=2.0H	+0.7/-1.0					+0.5/-0.9				

Calculate in accordance with CIE Pub.117. The table is revised with 2408lm ($8\log(F/F_0) = 3.1$).

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 = 1.00									
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	0.97	1.01	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	0.61	0.70	0.76	0.81	0.87	0.91	0.94	0.97	1.00	
	0.30		0.55	0.64	0.70	0.75	0.82	0.86	0.90	0.94	0.97	
	0.20		0.50	0.59	0.66	0.71	0.78	0.83	0.86	0.91	0.94	
0.30	0.50	0.20	0.60	0.68	0.74	0.78	0.84	0.87	0.90	0.94	0.96	
	0.30		0.54	0.63	0.69	0.73	0.80	0.84	0.87	0.91	0.94	
	0.20		0.50	0.59	0.65	0.69	0.76	0.81	0.84	0.89	0.91	
0.00	0.00	0.00	0.48	0.56	0.62	0.66	0.73	0.77	0.80	0.84	0.87	
Rating:22W 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	0.87	0.71	0.61	0.53	0.43	0.39	0.31	0.24	0.20	
	0.30		0.73	0.62	0.54	0.48	0.39	0.33	0.29	0.23	0.19	
	0.20		0.64	0.55	0.48	0.43	0.36	0.31	0.27	0.22	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		0.72	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:22W 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	0.18	0.19	0.19	0.20	0.21	0.21	0.22	0.22	
	0.30		0.10	0.12	0.13	0.14	0.16	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	0.16	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		0.06	0.07	0.09	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	0.19	0.19	0.20	0.20	0.21	
	0.30		0.10	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	0.13	0.14	0.16	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:22W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												