

Report No.: 1

Test Time: 05.11.2019 22:19

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FG 180 4x40LED 0,35A 44W 3000K opal

Luminous Length (mm): 1200

Luminous Width (mm): 180

Luminous Height (mm): 35

Voltage: 221.5 V

Current: 0.212 A

Power: 46.14 W

Power Factor: 0.982

Photometric Results

CIE Class: Direct

Measurement Flux: 4293.4 lm

Downward Ratio: 99%

Total Rated Lamp Lumens: 4293.4 lm

Efficiency: 100%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 165.2, 164.6, 164.8, 164.8

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 113.8, 113.5, 113.7, 113.6

Luminaire Efficacy Rating (LER): 93.10

Central Intensity: 1455.81 cd

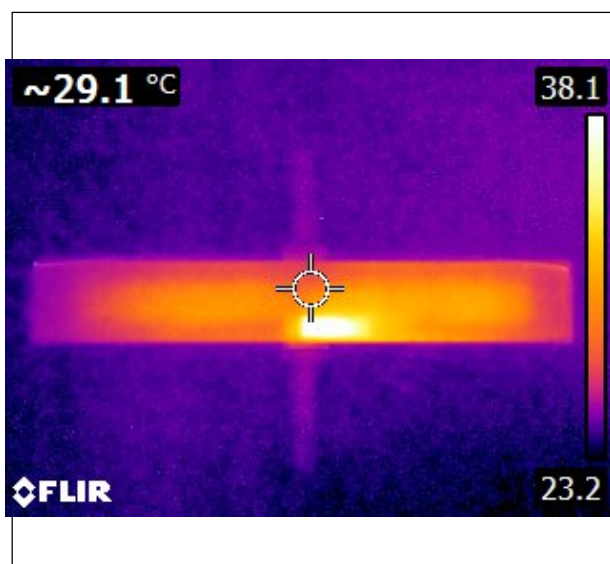
Max. Intensity: 1463.25 cd

Pos of Max. Intensity: H157.5 V2

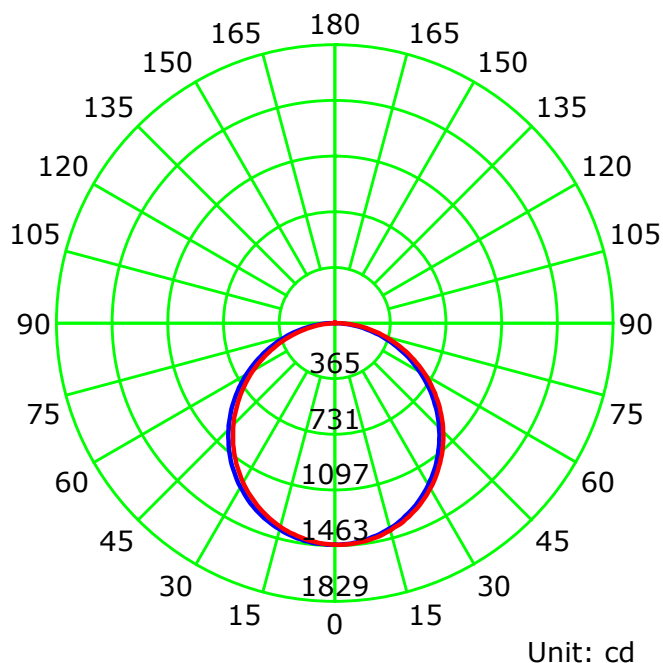
S/MH(C0/C180): 1.26

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

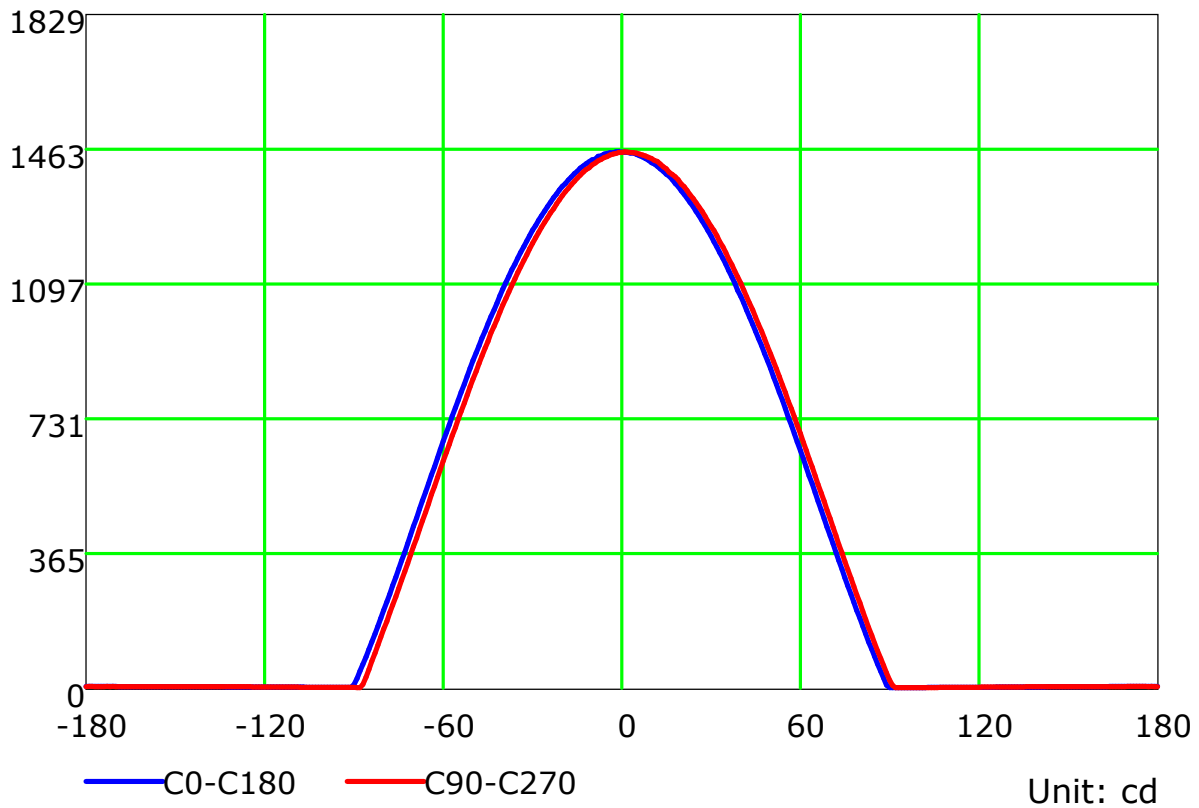
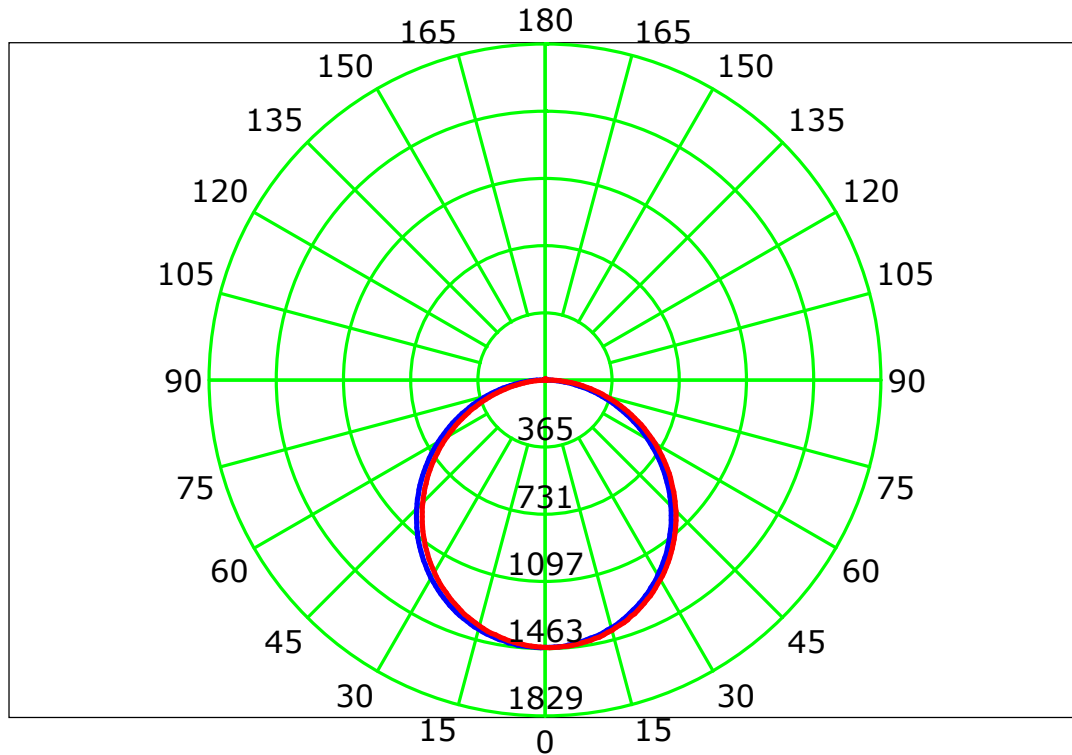
Test Device: LSG-1800B

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

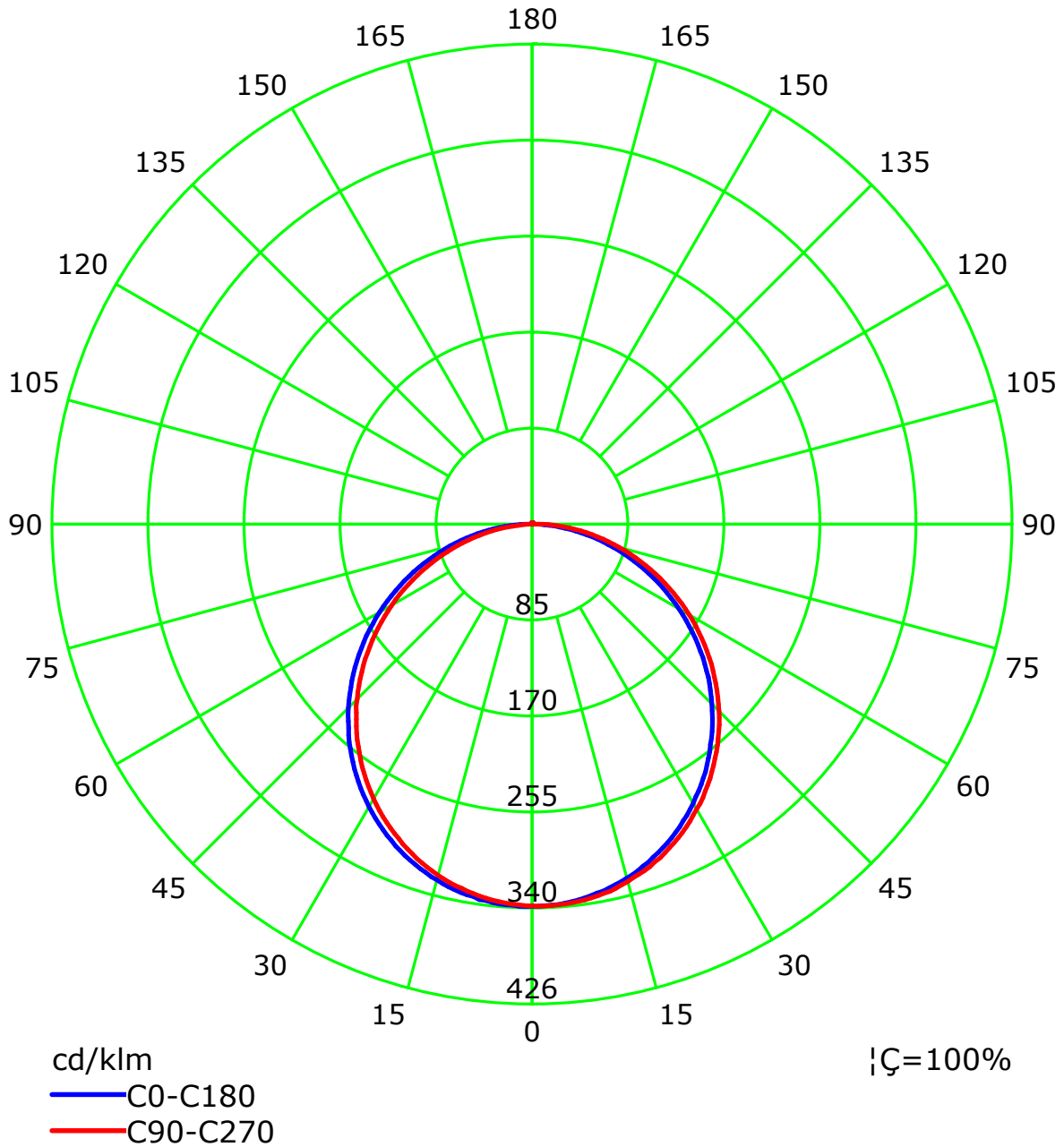
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

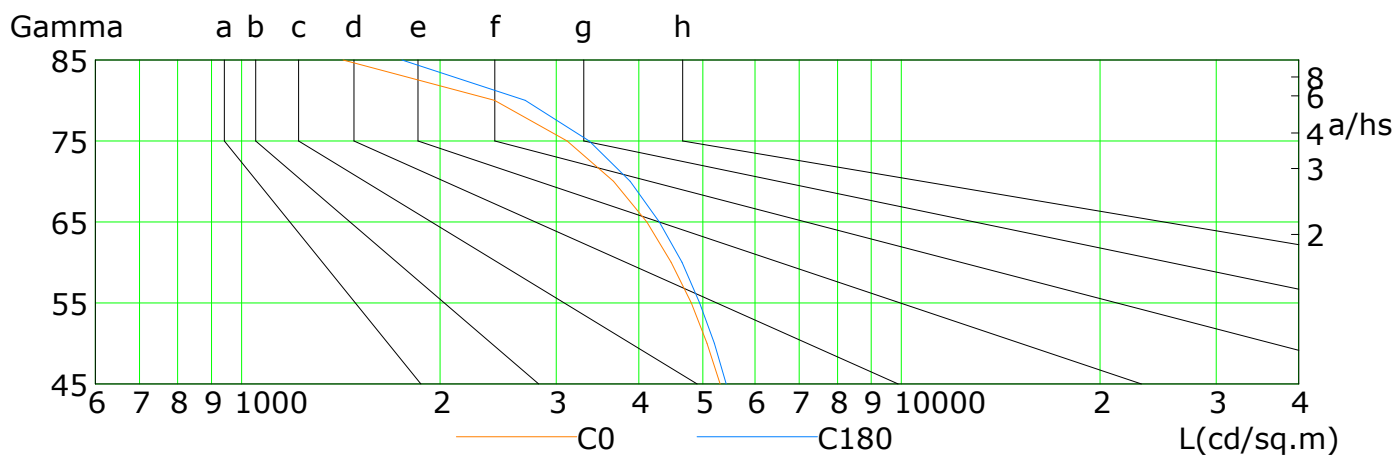
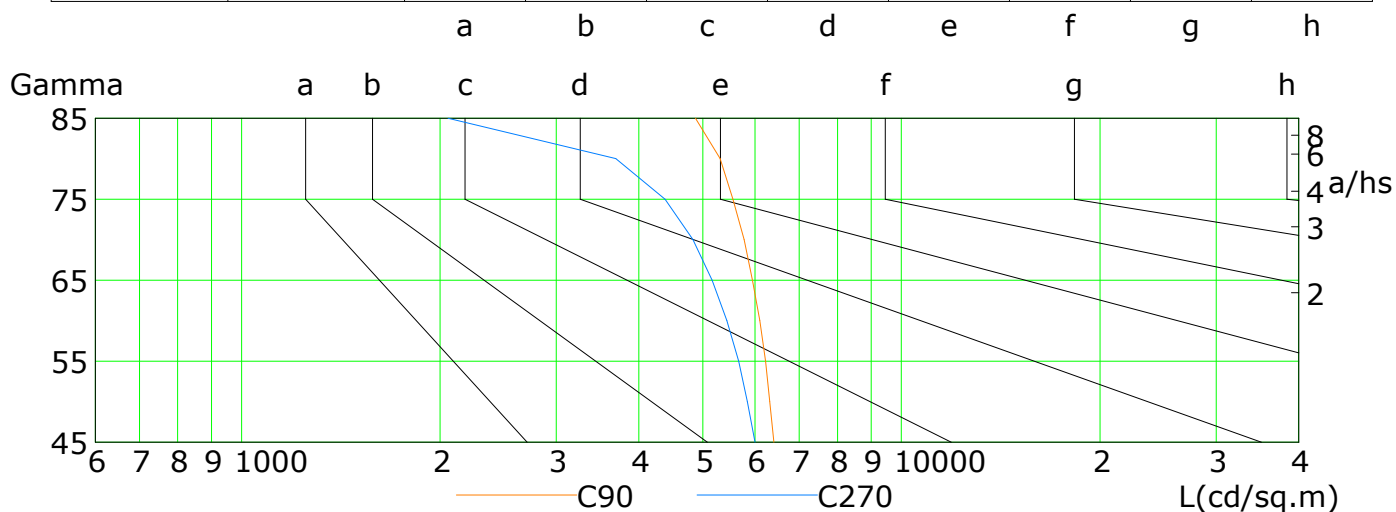
Inspector:

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

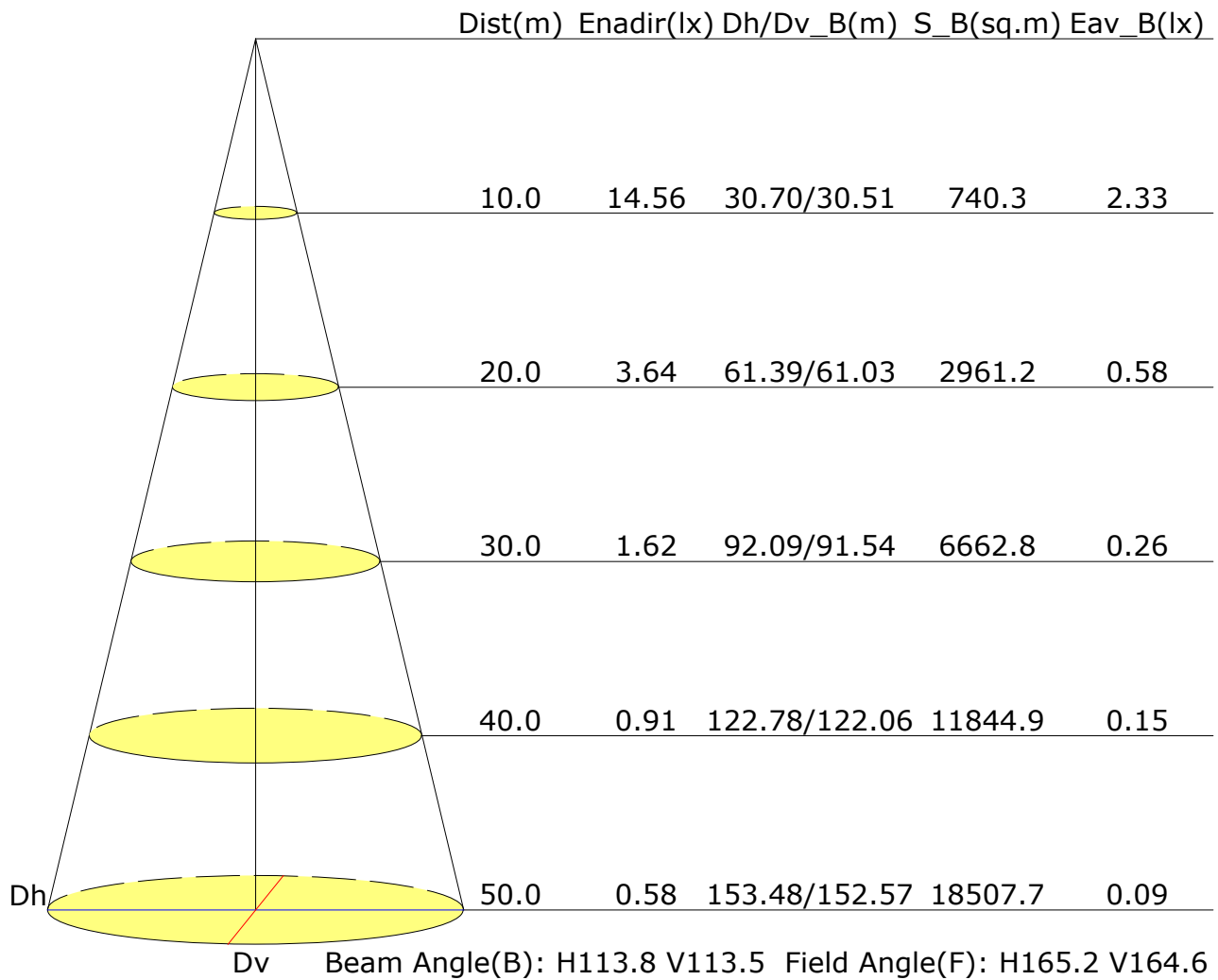


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	5311	5076	4802	4476	4112	3663	3115	2417	1425
C90	6412	6315	6227	6099	5949	5778	5557	5312	4873
C180	5427	5206	4943	4650	4297	3880	3366	2690	1751
C270	5997	5845	5666	5440	5167	4830	4386	3692	2056

C Plane (°):0.0-360.0: 22.5
 Test Lab:
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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	18.0	19.4	18.3	19.6	19.9	18.5	19.9	18.8	20.1	20.4
3H	19.4	20.7	19.7	21.0	21.2	20.1	21.4	20.4	21.6	21.9
4H	19.9	21.2	20.3	21.5	21.8	20.8	22.0	21.1	22.3	22.6
6H	20.3	21.5	20.7	21.8	22.1	21.3	22.4	21.7	22.7	23.1
8H	20.4	21.5	20.8	21.8	22.2	21.5	22.6	21.8	22.9	23.2
12H	20.5	21.5	20.9	21.9	22.2	21.6	22.6	22.0	23.0	23.3
X=4H Y=2H	18.6	19.9	19.0	20.2	20.5	19.0	20.2	19.4	20.5	20.9
3H	20.2	21.3	20.6	21.6	22.0	20.8	21.9	21.2	22.2	22.6
4H	20.9	21.9	21.3	22.2	22.6	21.6	22.6	22.0	22.9	23.3
6H	21.4	22.2	21.8	22.6	23.0	22.3	23.1	22.7	23.5	23.9
8H	21.5	22.3	22.0	22.7	23.2	22.5	23.3	23.0	23.7	24.1
12H	21.6	22.3	22.1	22.8	23.2	22.7	23.4	23.1	23.8	24.2
X=8H Y=4H	21.2	22.0	21.7	22.4	22.8	21.8	22.6	22.3	23.0	23.5
6H	21.8	22.4	22.3	22.9	23.4	22.6	23.2	23.1	23.7	24.2
8H	22.0	22.6	22.5	23.1	23.6	22.9	23.5	23.4	23.9	24.4
12H	22.2	22.7	22.7	23.1	23.6	23.2	23.6	23.7	24.1	24.6
X=12H Y=4H	21.2	21.9	21.7	22.4	22.8	21.9	22.5	22.3	23.0	23.4
6H	21.9	22.4	22.4	22.9	23.4	22.7	23.2	23.2	23.7	24.2
8H	22.1	22.6	22.6	23.1	23.6	23.0	23.5	23.5	24.0	24.5
Variations with the observer position at spacings:										
S=1.0H	+0.2/-0.2					+0.2/-0.2				
S=1.5H	+0.3/-0.5					+0.4/-0.5				
S=2.0H	+0.6/-0.9					+0.5/-0.9				

Calculate in accordance with CIE Pub.117. The table is revised with 4293lm ($8\log(F/F_0) = 5.1$).

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	0.79	0.86	0.91	0.95	1.00	1.03	
	0.30		0.47	0.58	0.66	0.71	0.80	0.85	0.90	0.95	0.99	
	0.20		0.42	0.52	0.60	0.66	0.74	0.80	0.85	0.91	0.96	
0.50	0.50	0.20	0.54	0.64	0.71	0.76	0.83	0.88	0.91	0.95	0.98	
	0.30		0.47	0.57	0.64	0.70	0.77	0.83	0.87	0.92	0.95	
	0.20		0.41	0.51	0.59	0.65	0.73	0.79	0.83	0.89	0.92	
0.30	0.50	0.20	0.52	0.62	0.68	0.73	0.80	0.84	0.87	0.92	0.94	
	0.30		0.46	0.56	0.63	0.68	0.75	0.80	0.84	0.89	0.92	
	0.20		0.41	0.51	0.58	0.63	0.71	0.77	0.81	0.86	0.89	
0.00	0.00	0.00	0.39	0.48	0.55	0.60	0.68	0.73	0.76	0.81	0.85	
Rating:46W 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	0.42	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	0.55	0.49	0.41	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	0.43	0.36	0.31	0.24	0.20	
	0.20		0.71	0.61	0.54	0.48	0.40	0.34	0.29	0.23	0.19	
0.00	0.00	0.00	0.61	0.51	0.45	0.39	0.32	0.27	0.23	0.18	0.15	
Rating:46W 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	0.21	0.21	0.22	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	0.09	0.11	0.13	0.14	0.16	0.17	
0.50	0.50	0.20	0.16	0.18	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	0.09	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	0.20	0.20	0.20	0.21	
	0.30		0.10	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.18	
	0.20		0.05	0.07	0.08	0.09	0.11	0.12	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:46W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												