

Report No.: 1

Test Time: 12.12.2019 20:43

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FG 180 4x24LED 0.35A 37W 5000K opal

Luminous Length (mm): 1200

Luminous Width (mm): 180

Luminous Height (mm): 35

Voltage: 221.4 V

Current: 0.166 A

Power: 35.88 W

Power Factor: 0.975

Photometric Results

CIE Class: Direct

Measurement Flux: 3730.4 lm

Downward Ratio: 99%

Total Rated Lamp Lumens: 3730.4 lm

Efficiency: 100%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 164.6, 163.5, 163.7, 163.7

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 112.3, 111.4, 111.8, 111.8

Luminaire Efficacy Rating (LER): 104.02

Central Intensity: 1295.68 cd

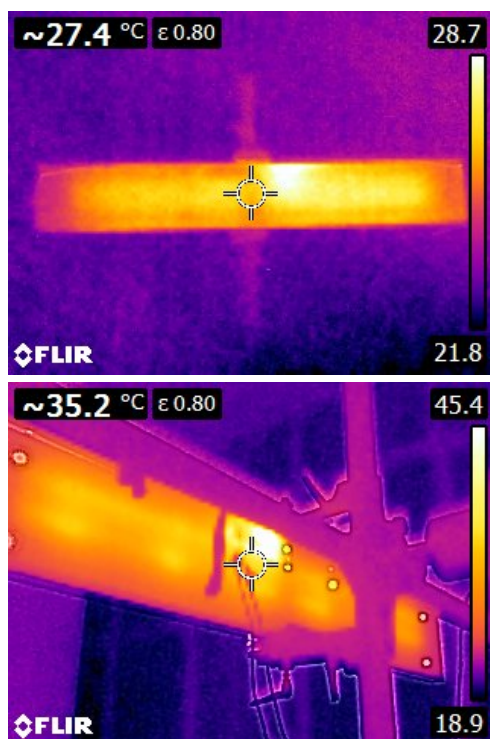
Max. Intensity: 1296 cd

Pos of Max. Intensity: H22.5 V0

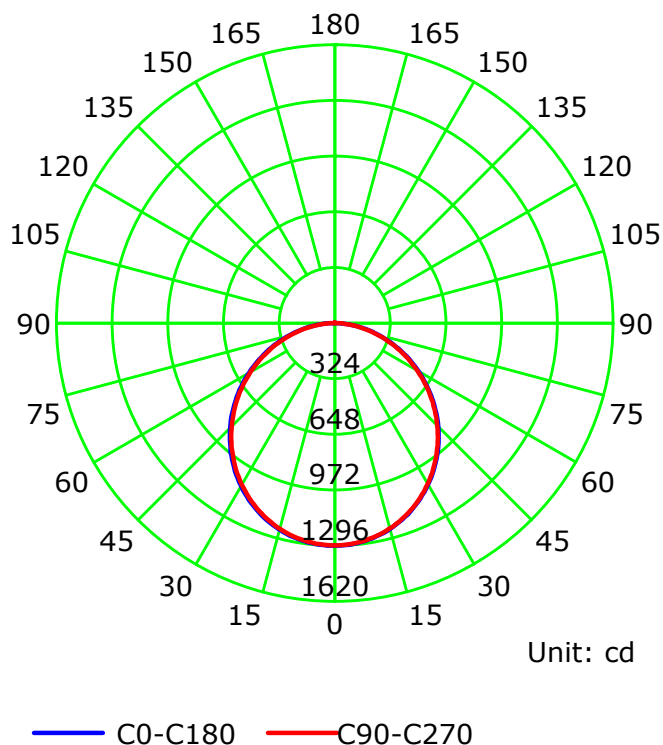
S/MH(C0/C180): 1.25

S/MH(C90/C270): 1.24

Termogramma



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

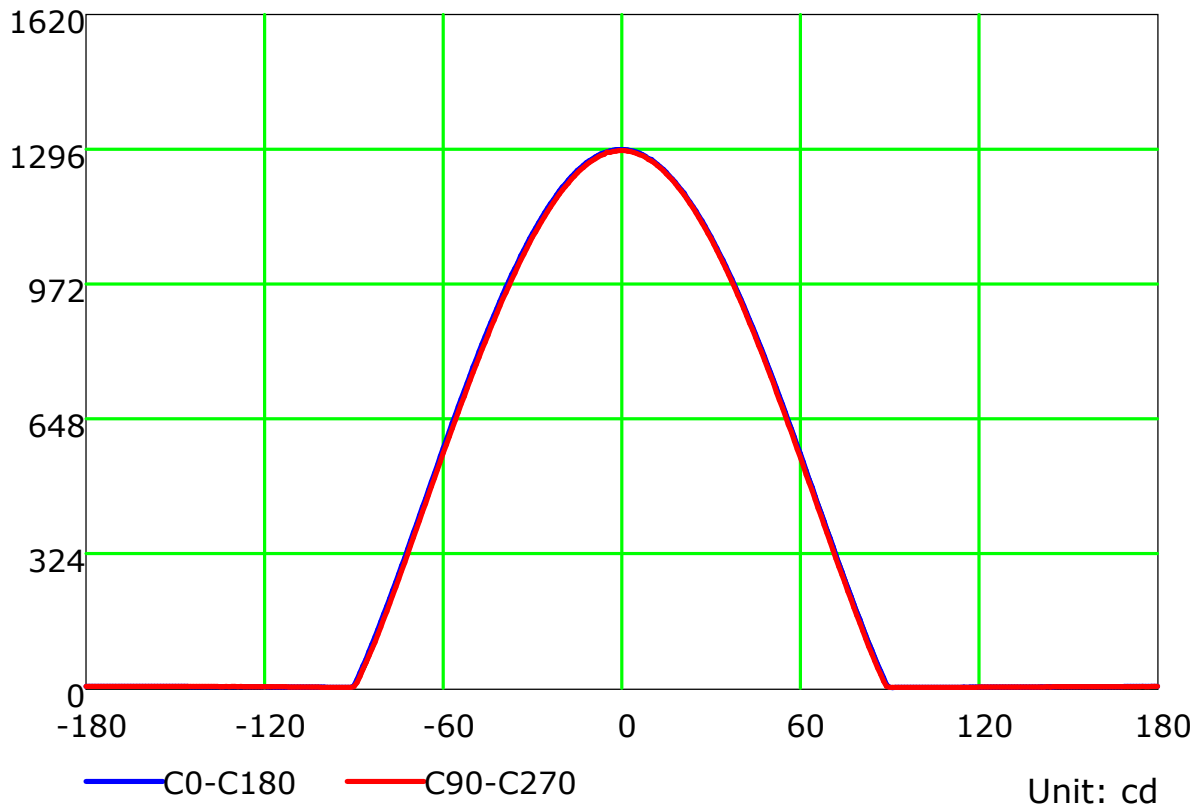
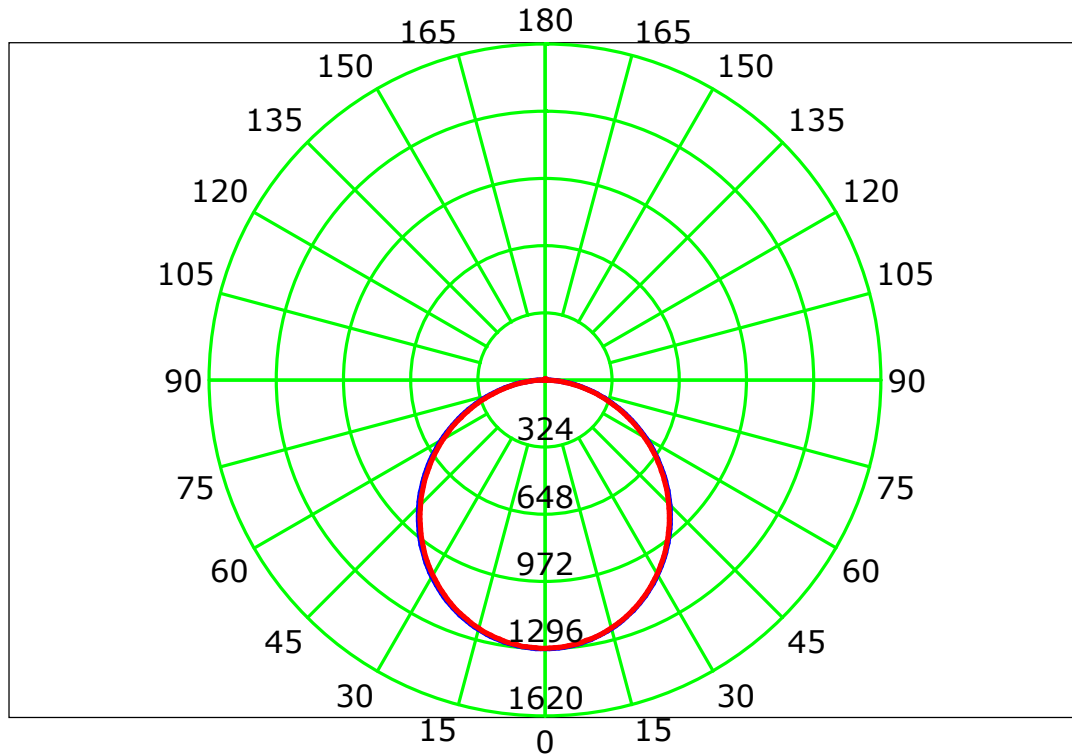
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

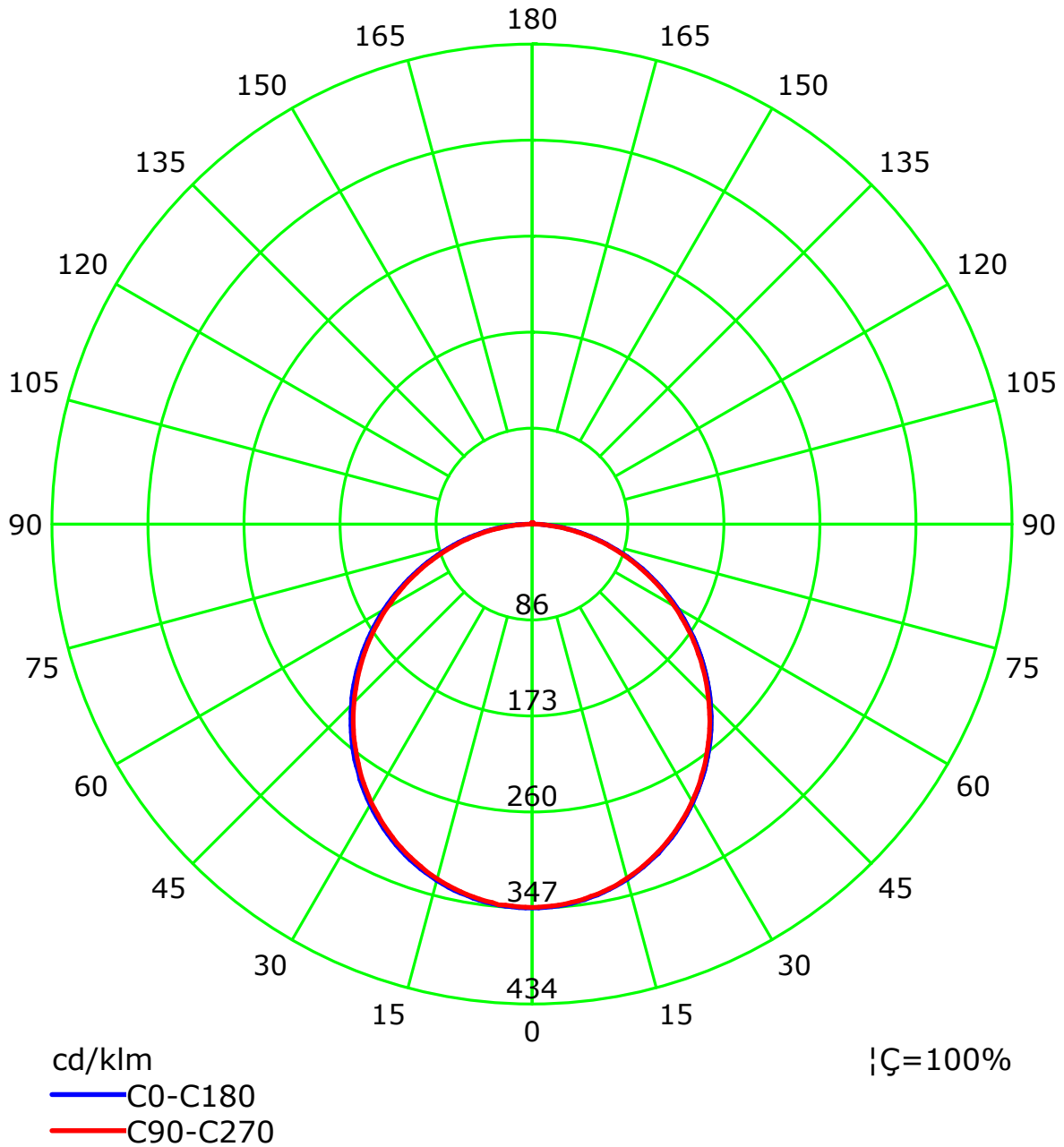
Luminous Intensity Distribution Curve



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)



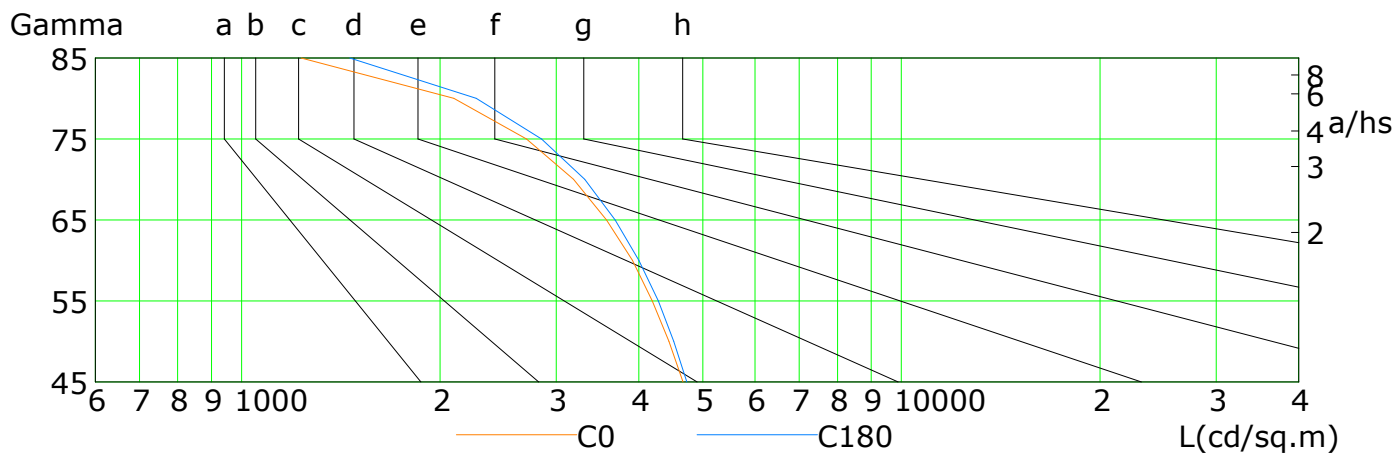
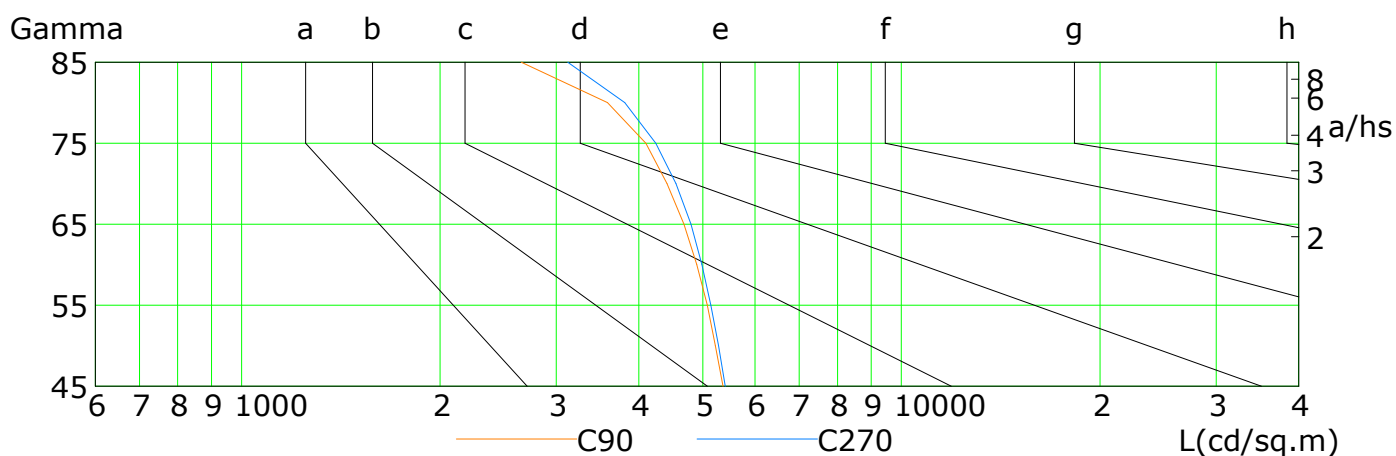
C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-180.0:1.0
Test Device: LSG-1800B
Distance: 12.677 m
Humidity:
Inspector:

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

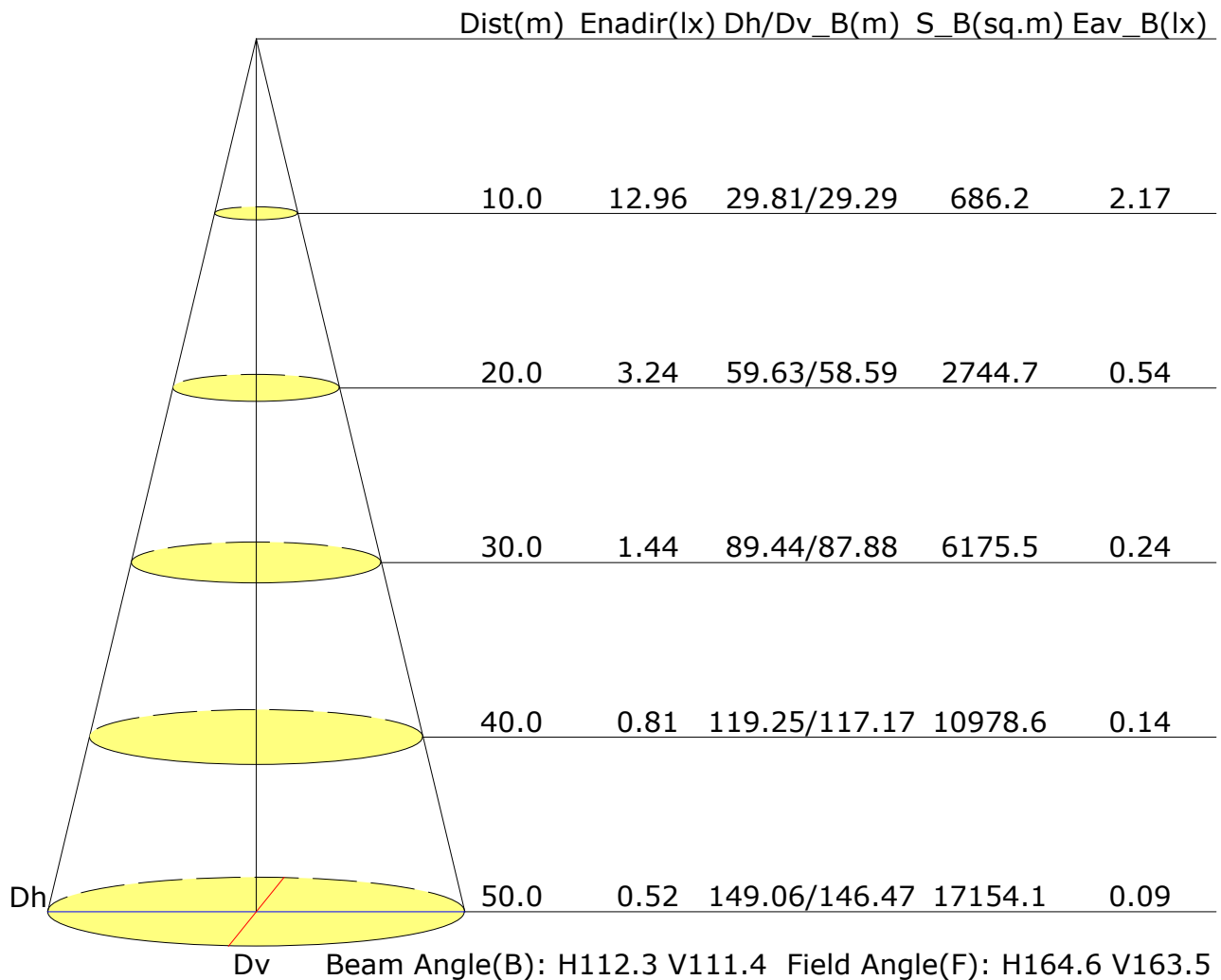


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	4668	4441	4192	3910	3574	3185	2703	2098	1231
C90	5369	5223	5080	4897	4684	4414	4099	3584	2654
C180	4730	4518	4280	4002	3683	3310	2849	2269	1459
C270	5405	5285	5143	4987	4798	4552	4242	3809	3121

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	17.5	18.9	17.8	19.1	19.4	17.9	19.3	18.2	19.6	19.8
3H	18.9	20.2	19.3	20.5	20.8	19.5	20.8	19.8	21.0	21.3
4H	19.5	20.7	19.8	21.0	21.3	20.1	21.3	20.5	21.6	21.9
6H	19.8	21.0	20.2	21.3	21.6	20.6	21.7	21.0	22.1	22.4
8H	19.9	21.0	20.3	21.4	21.7	20.8	21.9	21.2	22.2	22.5
12H	20.0	21.0	20.4	21.4	21.7	20.9	21.9	21.3	22.2	22.6
X=4H Y=2H	18.2	19.4	18.5	19.7	20.0	18.5	19.7	18.8	20.0	20.3
3H	19.8	20.8	20.1	21.1	21.5	20.2	21.3	20.6	21.6	22.0
4H	20.4	21.3	20.8	21.7	22.1	21.0	21.9	21.4	22.3	22.7
6H	20.9	21.7	21.3	22.1	22.5	21.6	22.4	22.0	22.8	23.2
8H	21.0	21.8	21.5	22.2	22.6	21.8	22.5	22.2	23.0	23.4
12H	21.1	21.8	21.6	22.2	22.7	21.9	22.6	22.4	23.0	23.5
X=8H Y=4H	20.7	21.5	21.1	21.9	22.3	21.2	22.0	21.7	22.4	22.8
6H	21.3	21.9	21.8	22.4	22.8	21.9	22.5	22.4	23.0	23.5
8H	21.5	22.0	22.0	22.5	23.0	22.2	22.7	22.7	23.2	23.7
12H	21.6	22.1	22.1	22.6	23.1	22.4	22.9	22.9	23.3	23.9
X=12H Y=4H	20.7	21.4	21.2	21.8	22.3	21.2	21.9	21.7	22.3	22.8
6H	21.4	21.9	21.8	22.4	22.9	22.0	22.5	22.4	23.0	23.5
8H	21.6	22.1	22.1	22.5	23.1	22.3	22.7	22.8	23.2	23.7
Variations with the observer position at spacings:										
S=1.0H	+0.2/-0.2					+0.2/-0.1				
S=1.5H	+0.3/-0.5					+0.3/-0.4				
S=2.0H	+0.6/-0.9					+0.5/-0.8				

Calculate in accordance with CIE Pub.117. The table is revised with 3730lm ($8\log(F/F_0) = 4.6$).

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	0.56	0.66	0.74	0.79	0.86	0.92	0.95	1.00	1.03	
	0.30		0.48	0.58	0.66	0.72	0.80	0.86	0.90	0.95	0.99	
	0.20		0.42	0.53	0.60	0.66	0.75	0.81	0.85	0.92	0.96	
0.50	0.50	0.20	0.54	0.64	0.71	0.76	0.83	0.88	0.91	0.96	0.98	
	0.30		0.47	0.57	0.65	0.70	0.78	0.83	0.87	0.92	0.95	
	0.20		0.42	0.52	0.59	0.65	0.73	0.79	0.83	0.89	0.93	
0.30	0.50	0.20	0.53	0.62	0.69	0.74	0.80	0.85	0.88	0.92	0.94	
	0.30		0.46	0.56	0.63	0.68	0.76	0.81	0.84	0.89	0.92	
	0.20		0.42	0.51	0.59	0.64	0.72	0.77	0.81	0.86	0.90	
0.00	0.00	0.00	0.39	0.49	0.56	0.61	0.68	0.73	0.77	0.82	0.85	
Rating:36W 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	0.83	0.71	0.62	0.50	0.41	0.36	0.28	0.23	
	0.30		0.84	0.71	0.62	0.55	0.45	0.38	0.33	0.26	0.22	
	0.20		0.72	0.62	0.55	0.49	0.41	0.35	0.31	0.25	0.21	
0.50	0.50	0.20	0.97	0.80	0.68	0.60	0.48	0.43	0.34	0.26	0.22	
	0.30		0.82	0.70	0.60	0.53	0.44	0.37	0.32	0.25	0.21	
	0.20		0.71	0.61	0.54	0.48	0.40	0.34	0.30	0.24	0.20	
0.30	0.50	0.20	0.94	0.77	0.66	0.57	0.46	0.38	0.32	0.25	0.21	
	0.30		0.81	0.68	0.59	0.52	0.42	0.35	0.30	0.24	0.20	
	0.20		0.71	0.61	0.53	0.47	0.39	0.33	0.29	0.23	0.19	
0.00	0.00	0.00	0.60	0.51	0.44	0.39	0.32	0.26	0.23	0.18	0.15	
Rating:36W 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	0.10	0.12	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	0.13	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:36W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												