

Report No.: 1

Test Time: 11.12.2019 22:08

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FG 180 4x24LED 0.3A 32W 5000K opal

Luminous Length (mm): 1200

Luminous Width (mm): 180

Luminous Height (mm): 35

Voltage: 221.5 V

Current: 0.150 A

Power: 32.32 W

Power Factor: 0.968

Photometric Results

CIE Class: Direct

Measurement Flux: 3400.9 lm

Downward Ratio: 99%

Total Rated Lamp Lumens: 3400.9 lm

Efficiency: 100%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 164.5, 163.9, 164.2, 164.1

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 112.2, 111.4, 111.8, 111.8

Luminaire Efficacy Rating (LER): 105.28

Central Intensity: 1178.5 cd

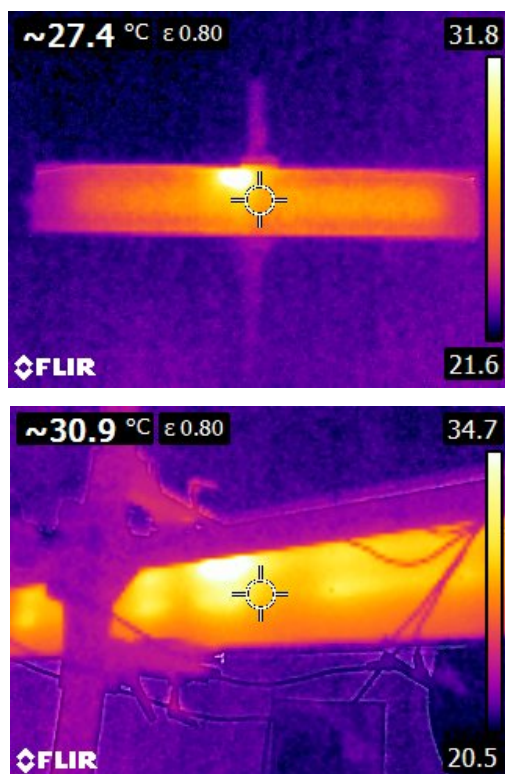
Max. Intensity: 1178.92 cd

Pos of Max. Intensity: H157.5 V1

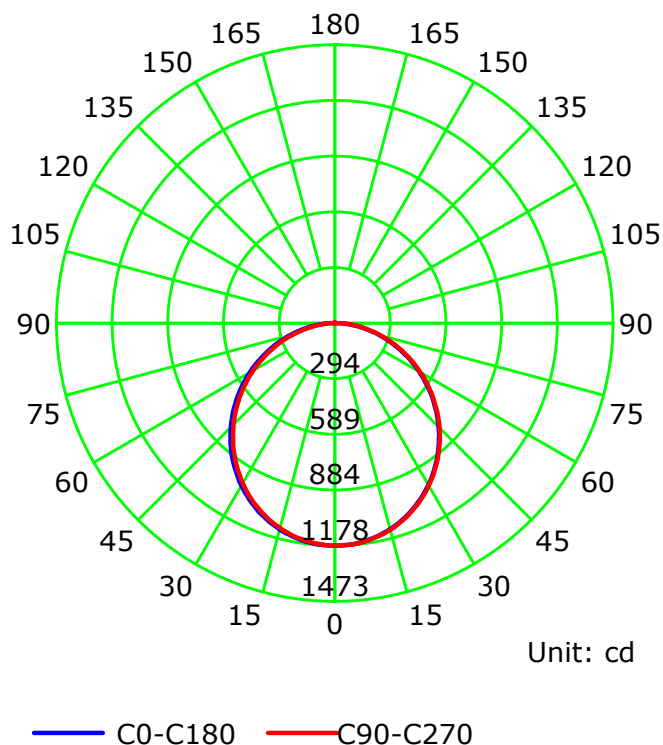
S/MH(C0/C180): 1.25

S/MH(C90/C270): 1.25

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

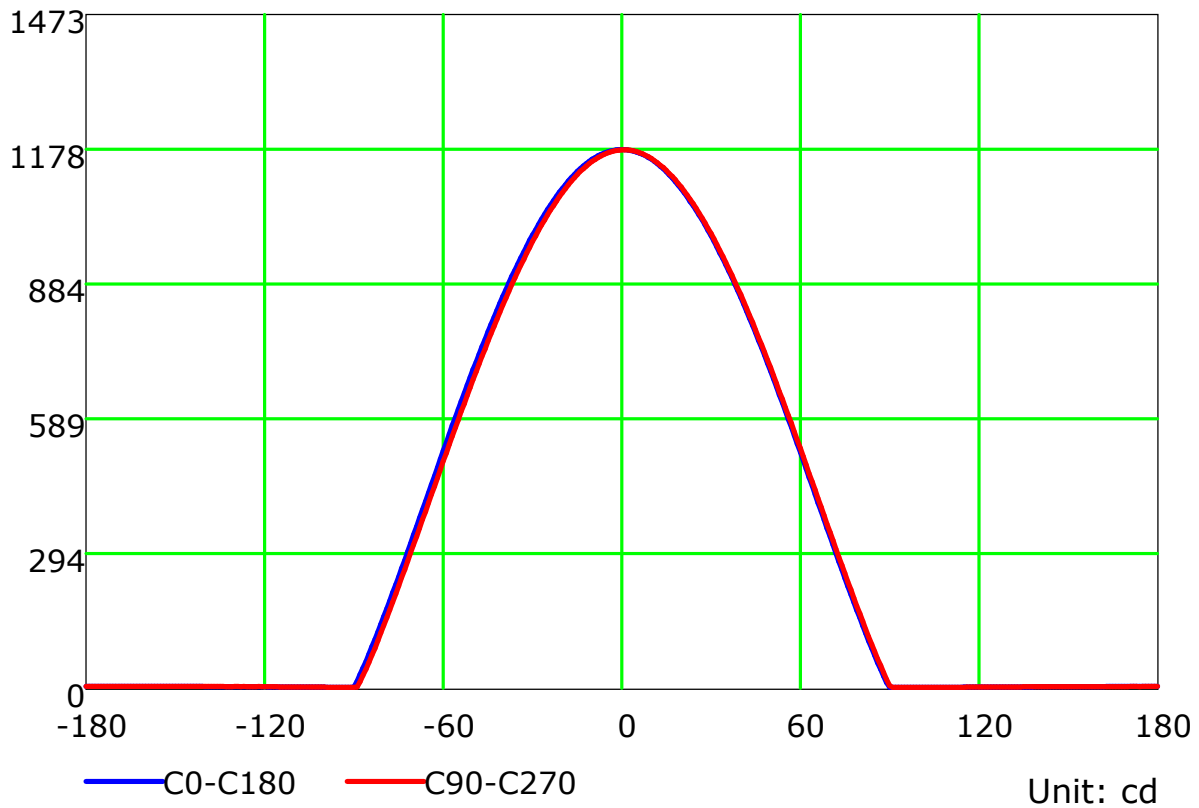
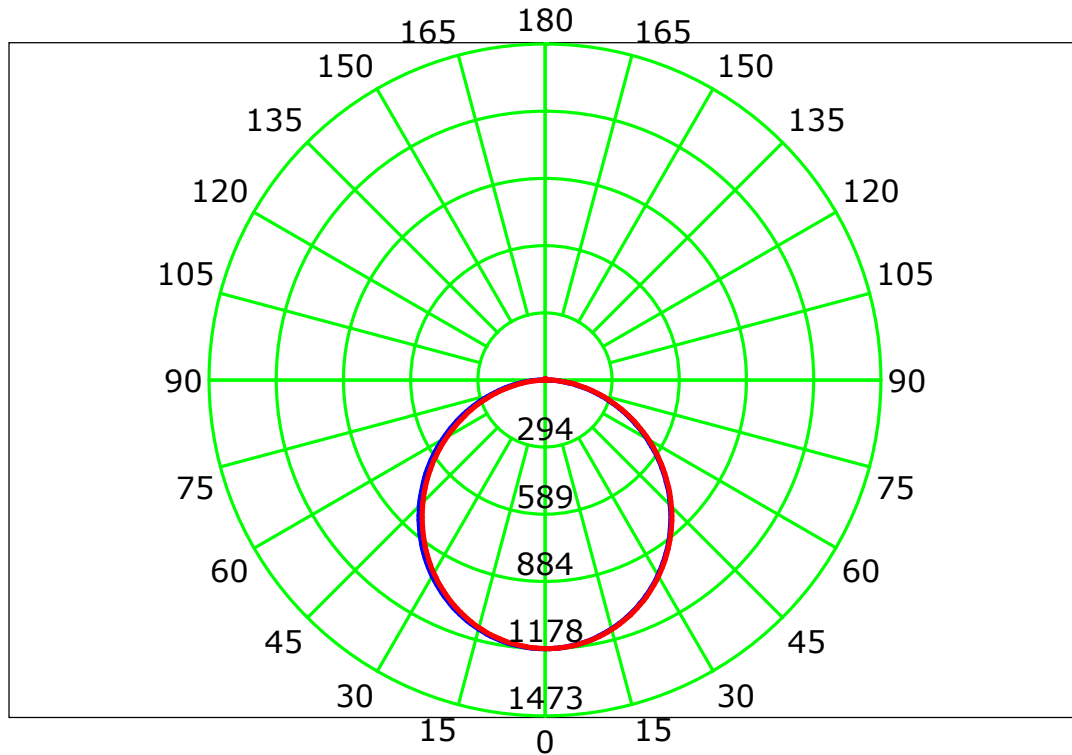
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

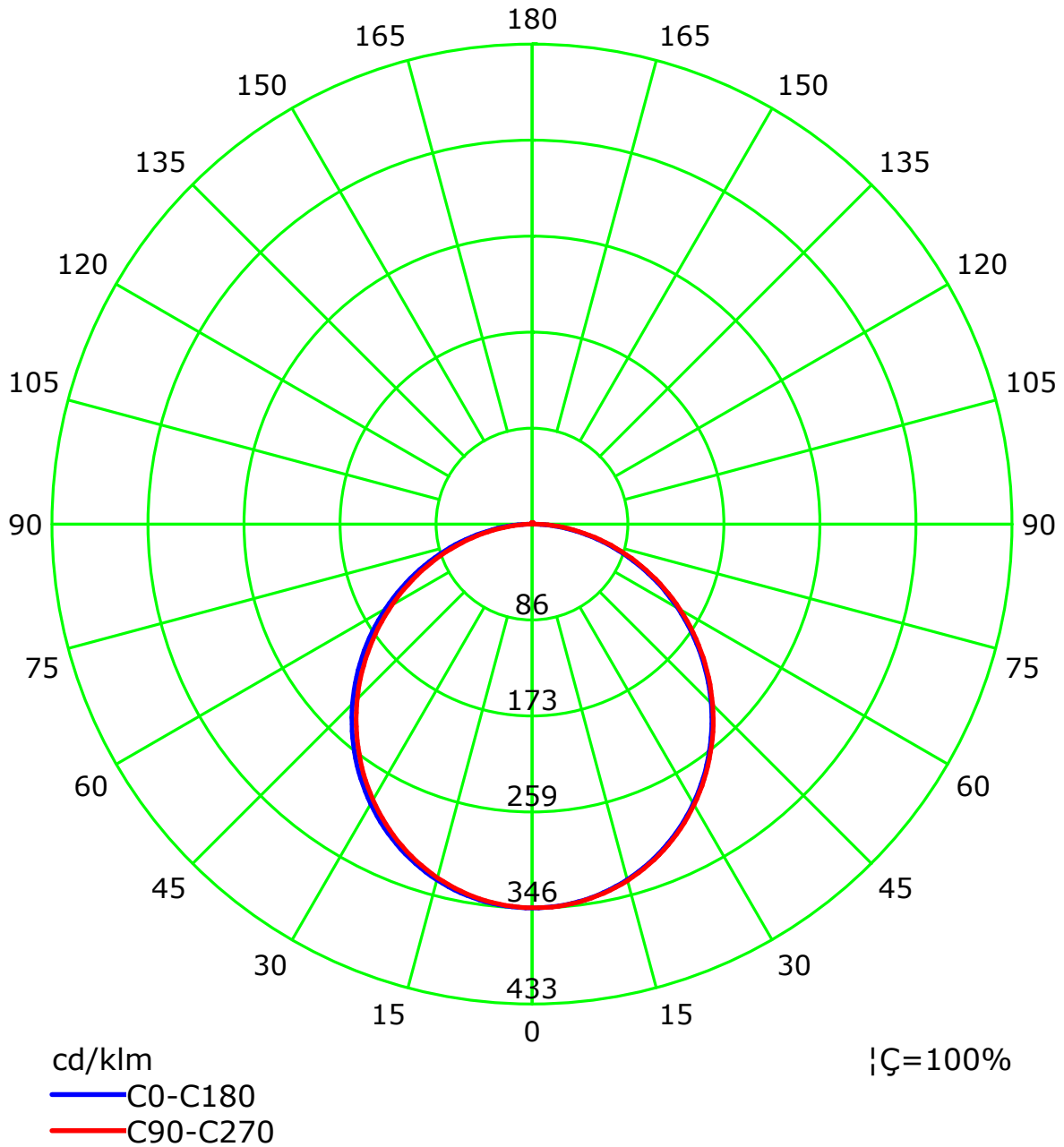
Luminous Intensity Distribution Curve



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)



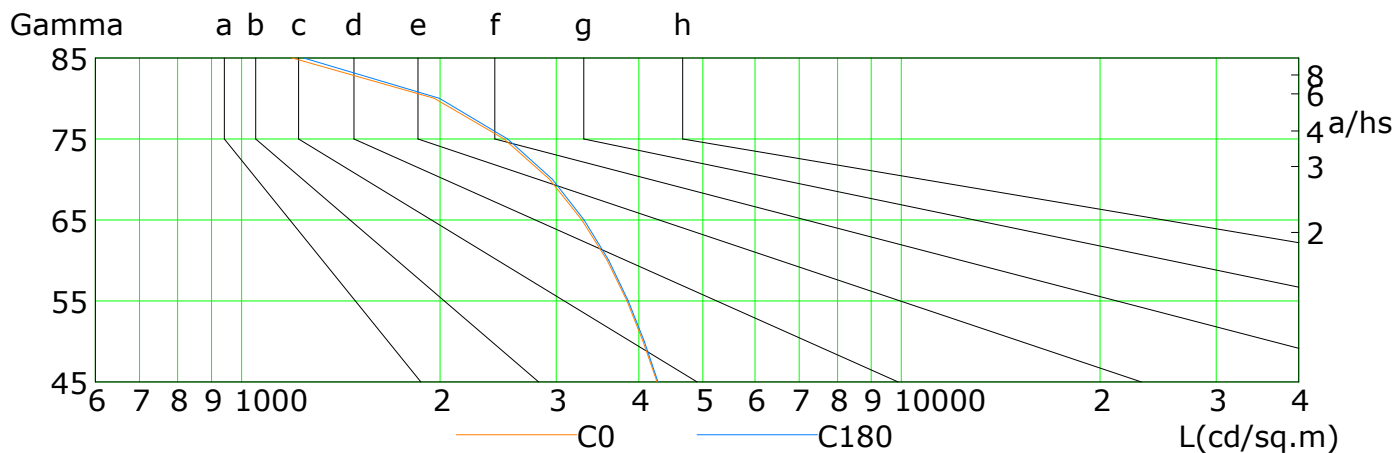
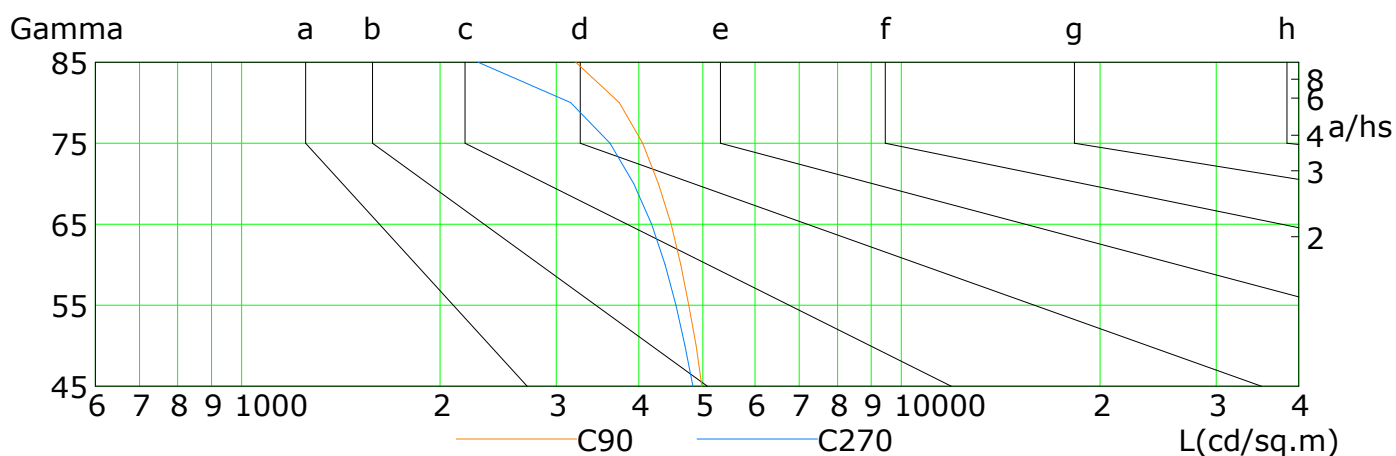
C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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

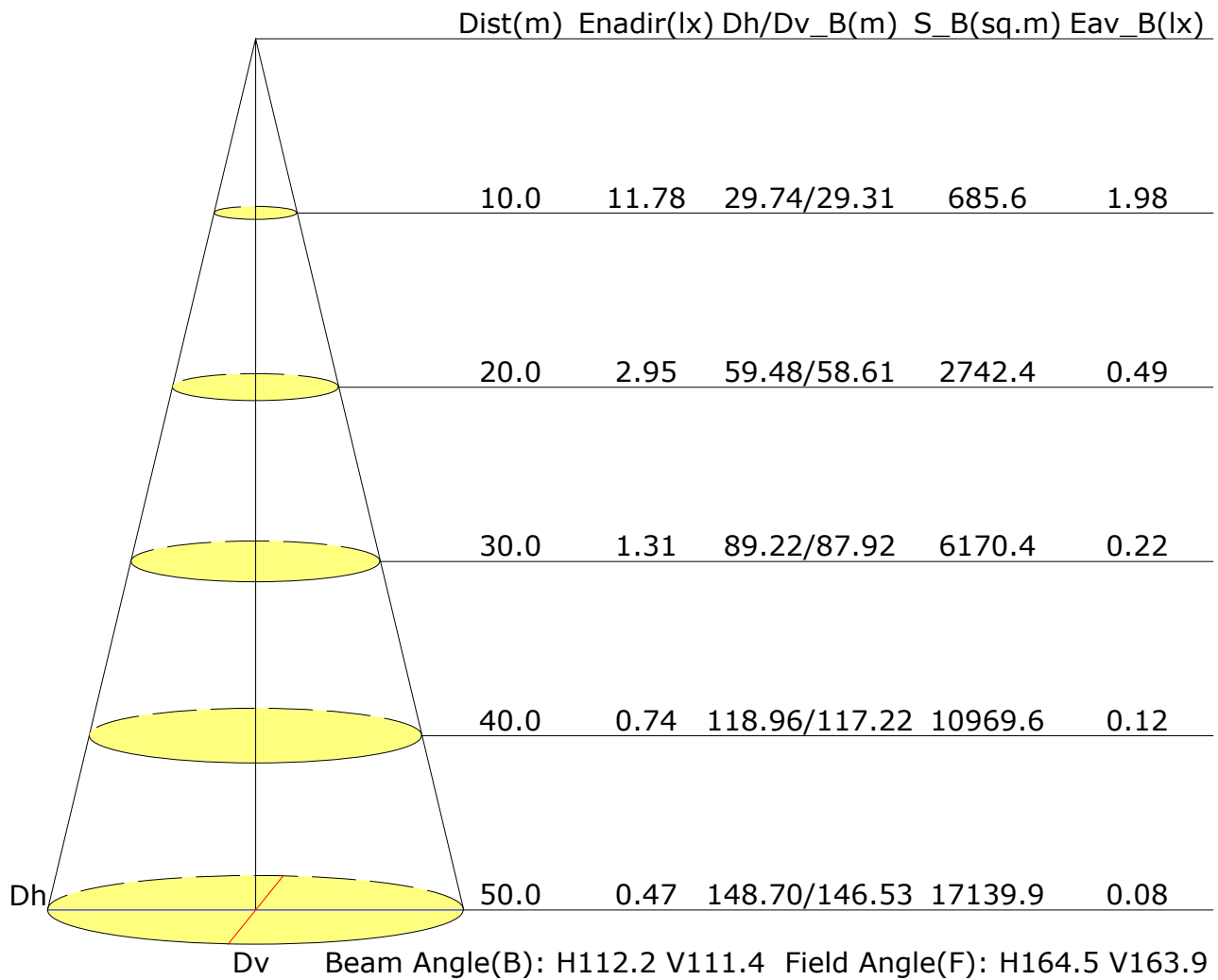


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	4264	4059	3837	3582	3280	2930	2500	1959	1193
C90	4987	4883	4763	4629	4475	4281	4055	3737	3212
C180	4276	4078	3856	3600	3305	2960	2531	1994	1242
C270	4833	4698	4551	4383	4182	3931	3619	3155	2283

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	17.2	18.6	17.5	18.9	19.1	17.6	19.0	17.9	19.3	19.5
3H	18.6	19.9	19.0	20.2	20.5	19.2	20.5	19.5	20.7	21.0
4H	19.2	20.4	19.5	20.7	21.0	19.8	21.0	20.2	21.4	21.7
6H	19.6	20.7	19.9	21.0	21.4	20.4	21.5	20.7	21.8	22.1
8H	19.7	20.8	20.1	21.1	21.4	20.5	21.6	20.9	21.9	22.3
12H	19.7	20.8	20.1	21.1	21.5	20.6	21.7	21.0	22.0	22.4
X=4H Y=2H	17.9	19.1	18.2	19.4	19.7	18.2	19.4	18.5	19.7	20.0
3H	19.5	20.5	19.9	20.9	21.2	19.9	21.0	20.3	21.3	21.7
4H	20.1	21.1	20.6	21.4	21.8	20.7	21.6	21.1	22.0	22.4
6H	20.6	21.5	21.1	21.9	22.3	21.3	22.2	21.8	22.6	23.0
8H	20.8	21.6	21.2	22.0	22.4	21.6	22.3	22.0	22.7	23.2
12H	20.9	21.6	21.4	22.0	22.5	21.7	22.4	22.2	22.8	23.3
X=8H Y=4H	20.4	21.2	20.9	21.6	22.0	20.9	21.7	21.4	22.1	22.6
6H	21.1	21.7	21.5	22.1	22.6	21.7	22.3	22.2	22.8	23.2
8H	21.3	21.8	21.8	22.3	22.8	22.0	22.5	22.5	23.0	23.5
12H	21.4	21.9	21.9	22.4	22.9	22.2	22.7	22.7	23.2	23.7
X=12H Y=4H	20.5	21.1	20.9	21.6	22.0	21.0	21.6	21.4	22.1	22.5
6H	21.1	21.7	21.6	22.1	22.6	21.7	22.3	22.2	22.7	23.2
8H	21.4	21.8	21.9	22.3	22.8	22.1	22.5	22.6	23.0	23.5
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/-0.8				

Calculate in accordance with CIE Pub.117. The table is revised with 3401lm ($8\log(F/F_0) = 4.3$).

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	0.56	0.66	0.74	0.79	0.86	0.91	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	0.64	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	0.73	0.80	0.84	0.88	0.92	0.94	
	0.30		0.46	0.56	0.63	0.68	0.75	0.81	0.84	0.89	0.92	
	0.20		0.42	0.51	0.58	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:32W 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	0.71	0.62	0.50	0.42	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	0.62	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	0.31	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	0.27	0.23	0.18	0.15	
Rating:32W 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	0.23	
	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	0.08	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	0.22	
	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:32W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												