

Report No.: 1

Test Time: 16.12.2019 22:06

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FG 180 4x24LED 0.4A 20.5W 5000K microprisma

Luminous Length (mm): 1200

Luminous Width (mm): 180

Luminous Height (mm): 35

Voltage: 221.3 V

Current: 0.095 A

Power: 20.32 W

Power Factor: 0.964

Photometric Results

CIE Class: Direct

Measurement Flux: 2439.4 lm

Downward Ratio: 99%

Total Rated Lamp Lumens: 2439.4 lm

Efficiency: 100%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 160.1, 161.1, 149.8, 149.3

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 77.8, 78.5, 75.9, 75.6

Luminaire Efficacy Rating (LER): 120.10

Central Intensity: 1261.73 cd

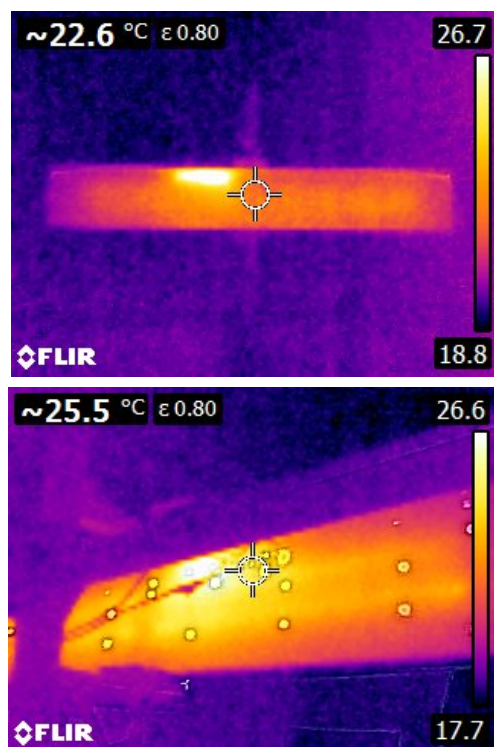
Max. Intensity: 1262.2 cd

Pos of Max. Intensity: H202.5 V1

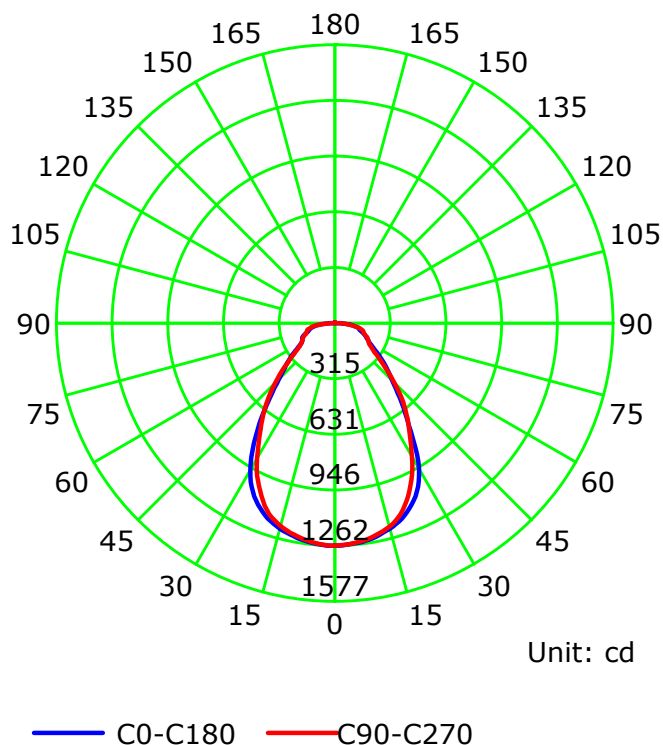
S/MH(C0/C180): 1.14

S/MH(C90/C270): 1.08

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

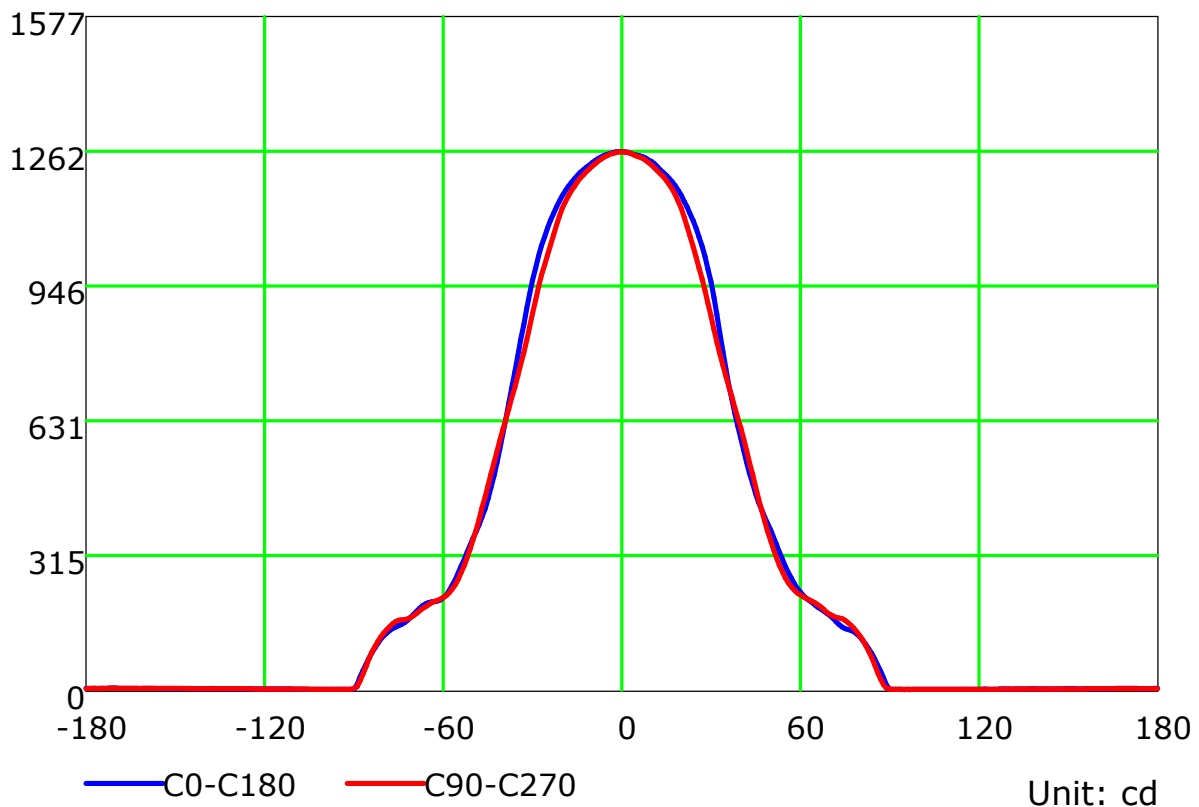
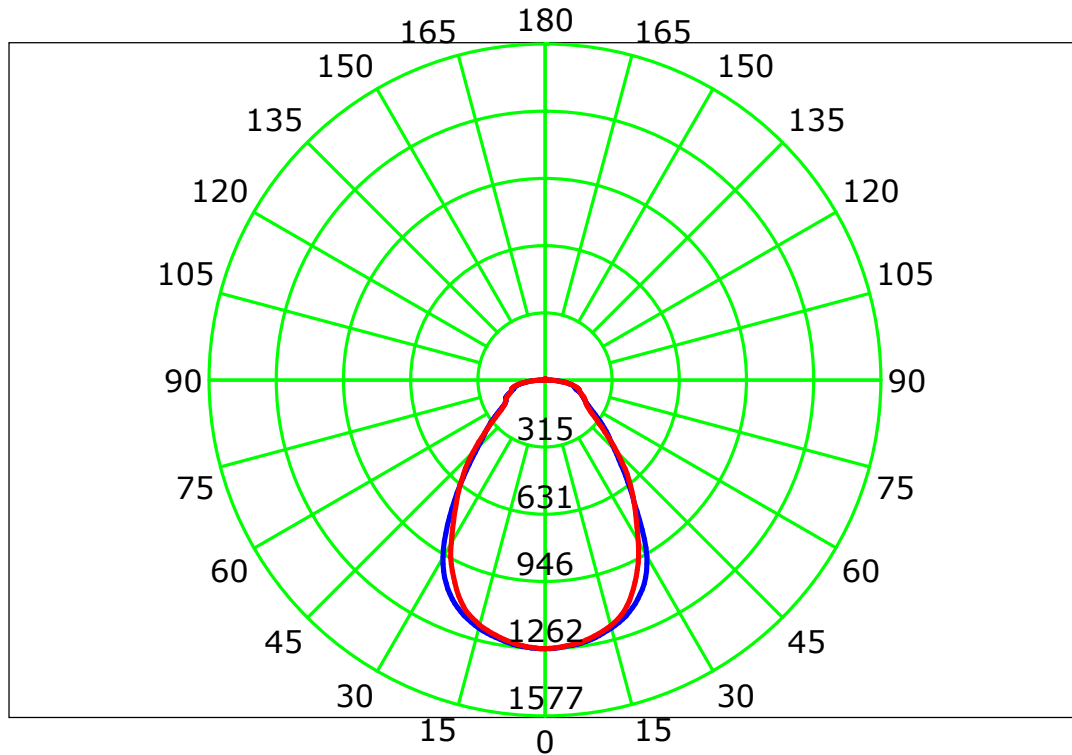
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

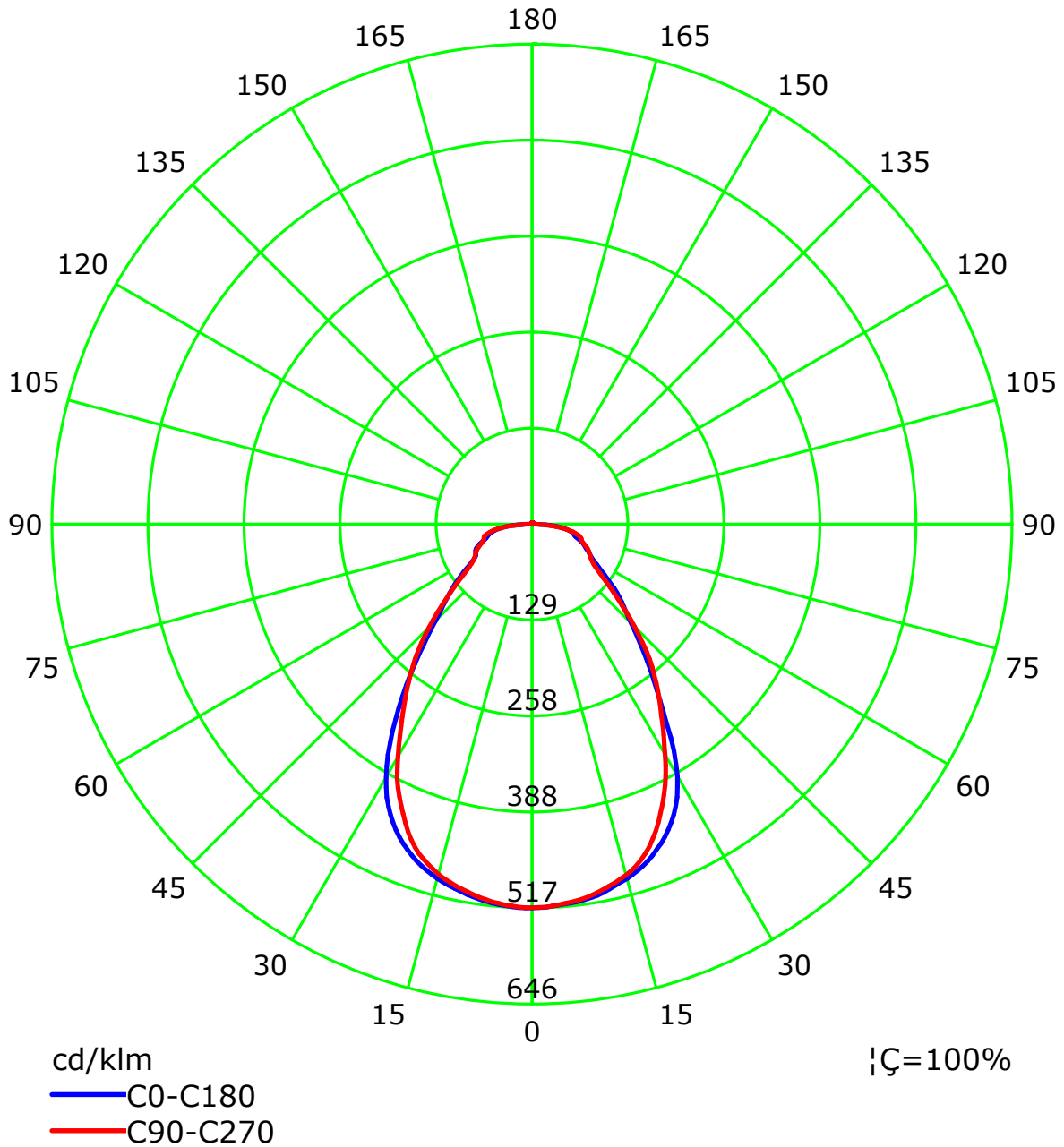
Luminous Intensity Distribution Curve



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)

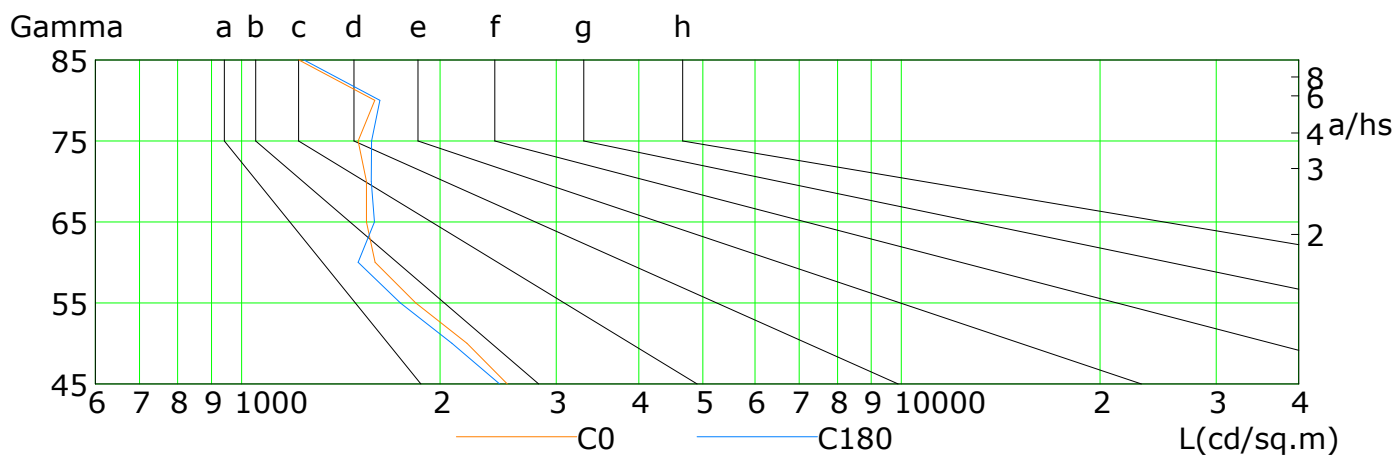
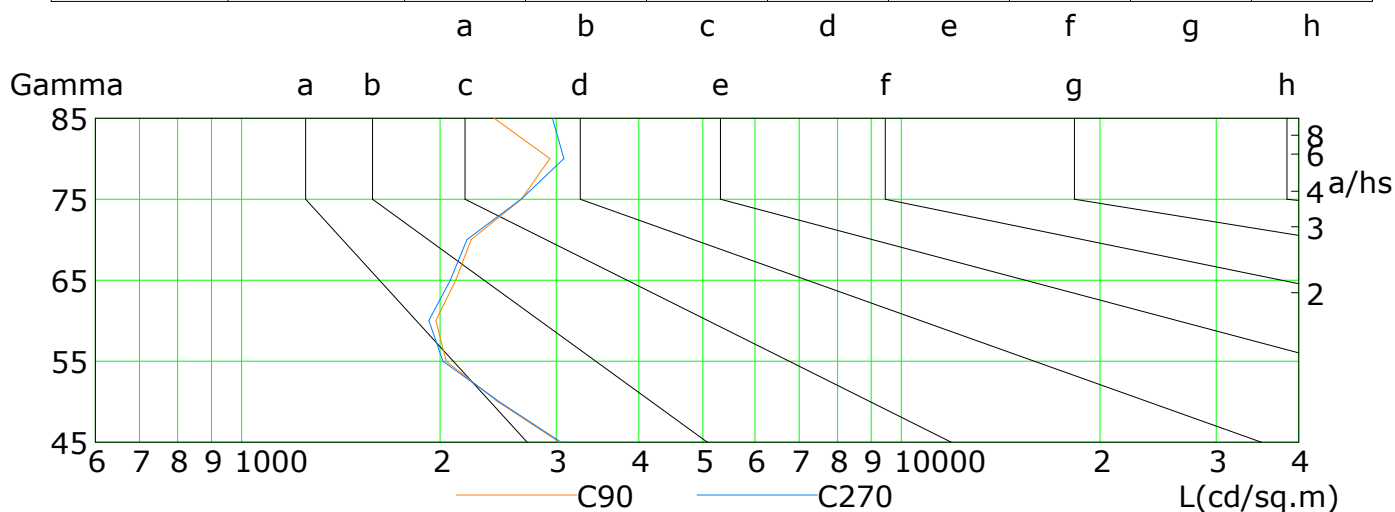


C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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

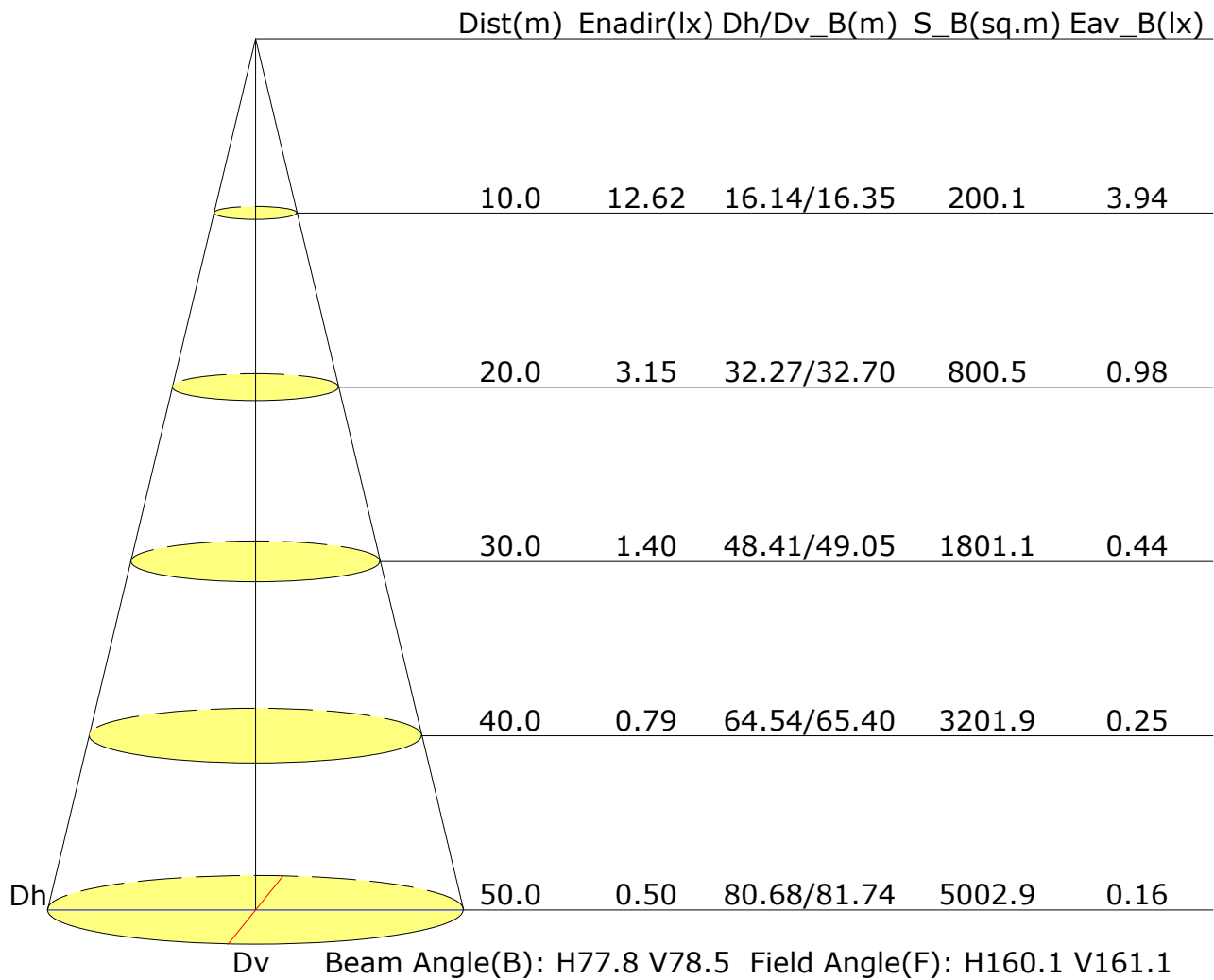


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	2528	2196	1835	1594	1547	1546	1501	1591	1221
C90	3034	2445	2043	1969	2111	2228	2655	2932	2415
C180	2461	2084	1740	1503	1590	1573	1573	1620	1243
C270	3051	2455	2019	1922	2071	2195	2651	3080	2959

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	13.8	15.1	14.1	15.3	15.6	14.0	15.3	14.3	15.5	15.8
3H	15.2	16.4	15.6	16.6	16.9	15.7	16.8	16.0	17.1	17.4
4H	15.9	17.0	16.3	17.3	17.6	16.7	17.8	17.0	18.1	18.4
6H	16.7	17.7	17.0	18.0	18.3	17.8	18.8	18.2	19.1	19.4
8H	17.0	17.9	17.4	18.3	18.6	18.2	19.2	18.6	19.5	19.9
12H	17.2	18.1	17.6	18.5	18.8	18.6	19.5	18.9	19.8	20.2
X=4H Y=2H	14.3	15.4	14.7	15.7	16.0	14.5	15.6	14.8	15.9	16.2
3H	16.0	16.9	16.3	17.2	17.6	16.4	17.3	16.8	17.6	18.0
4H	16.8	17.6	17.2	18.0	18.4	17.6	18.4	18.0	18.8	19.1
6H	17.7	18.5	18.1	18.8	19.3	18.8	19.6	19.3	20.0	20.4
8H	18.1	18.8	18.6	19.2	19.6	19.4	20.0	19.8	20.4	20.9
12H	18.4	19.0	18.9	19.4	19.9	19.7	20.4	20.2	20.8	21.2
X=8H Y=4H	17.1	17.8	17.6	18.2	18.7	17.8	18.5	18.3	18.9	19.3
6H	18.2	18.8	18.7	19.2	19.7	19.2	19.8	19.7	20.2	20.7
8H	18.7	19.2	19.2	19.7	20.2	19.9	20.4	20.4	20.8	21.3
12H	19.1	19.5	19.6	20.0	20.5	20.3	20.8	20.9	21.3	21.8
X=12H Y=4H	17.2	17.8	17.7	18.2	18.7	17.8	18.5	18.3	18.9	19.3
6H	18.3	18.8	18.8	19.3	19.8	19.3	19.8	19.8	20.2	20.7
8H	18.8	19.3	19.3	19.8	20.3	20.0	20.4	20.5	20.9	21.4
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					+0.4/-0.7				
S=2.0H	+0.7/-1.0					+0.6/-0.8				

Calculate in accordance with CIE Pub.117. The table is revised with 2439lm ($8\log(F/F_0) = 3.1$).

C Plane (°):0.0-360.0: 22.5
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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 = 1.00									
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	0.95	
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:20W 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	0.40	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	0.30	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	0.21	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		0.71	0.60	0.52	0.46	0.37	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	0.37	0.33	0.27	0.23	0.20	0.16	0.13	
Rating:20W 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	0.23	
	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	0.22	
	0.30		0.10	0.12	0.13	0.14	0.15	0.17	0.17	0.19	0.19	
	0.20		0.06	0.07	0.09	0.10	0.12	0.13	0.15	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	0.13	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	
0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Rating:20W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												