

Report No.: 1

Test Time: 18.09.2019 15:20

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FD 112 100W 120gr

Luminous Width (mm): 277

Voltage: 220.8 V

Power: 100.15 W

Luminous Length (mm): 277

Luminous Height (mm): 123

Current: 0.457 A

Power Factor: 0.991

Photometric Results

CIE Class: Direct

Measurement Flux: 15018.7 lm

Downward Ratio: 100%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 150.6, 151.5, 150.6, 150.4

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 108.6, 112.2, 110.5, 109.7

Luminaire Efficacy Rating (LER): 150.01

Max. Intensity: 5596.75 cd

S/MH(C0/C180): 1.28

Total Rated Lamp Lumens: 15018.7 lm

Efficiency: 100%

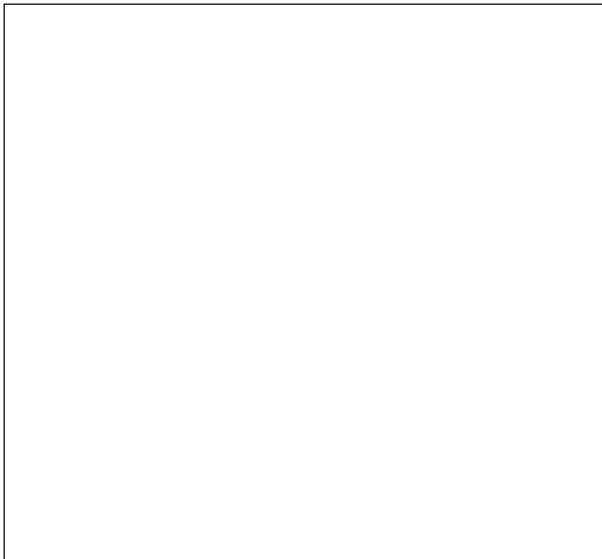
Upward Ratio: 0%

Central Intensity: 5595.22 cd

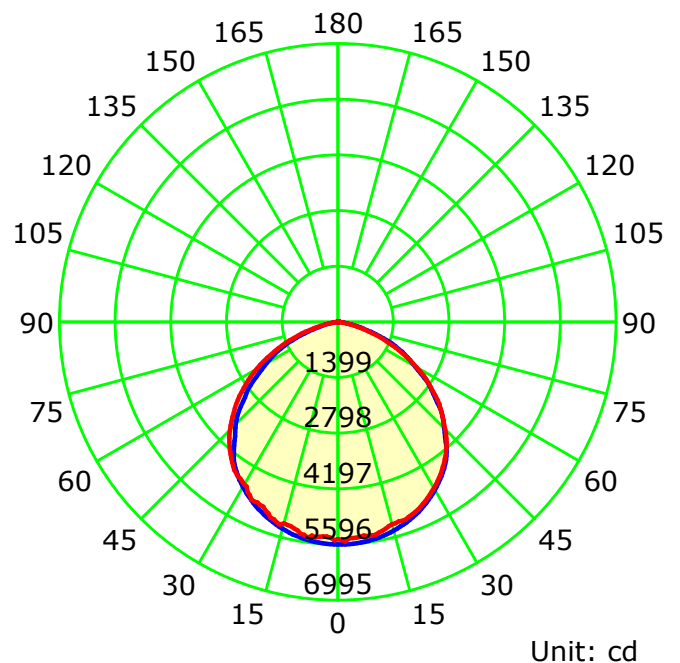
Pos of Max. Intensity: H0 V1

S/MH(C90/C270): 1.31

Picture Of Luminaire



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

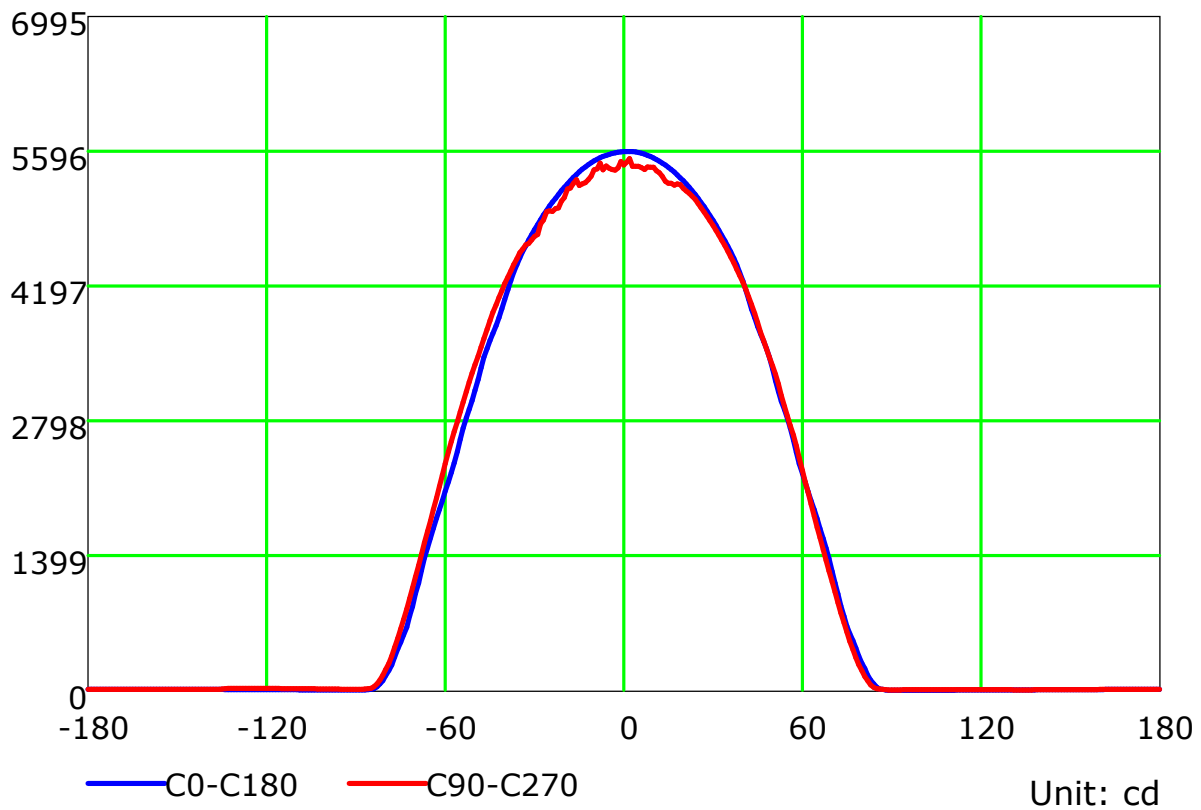
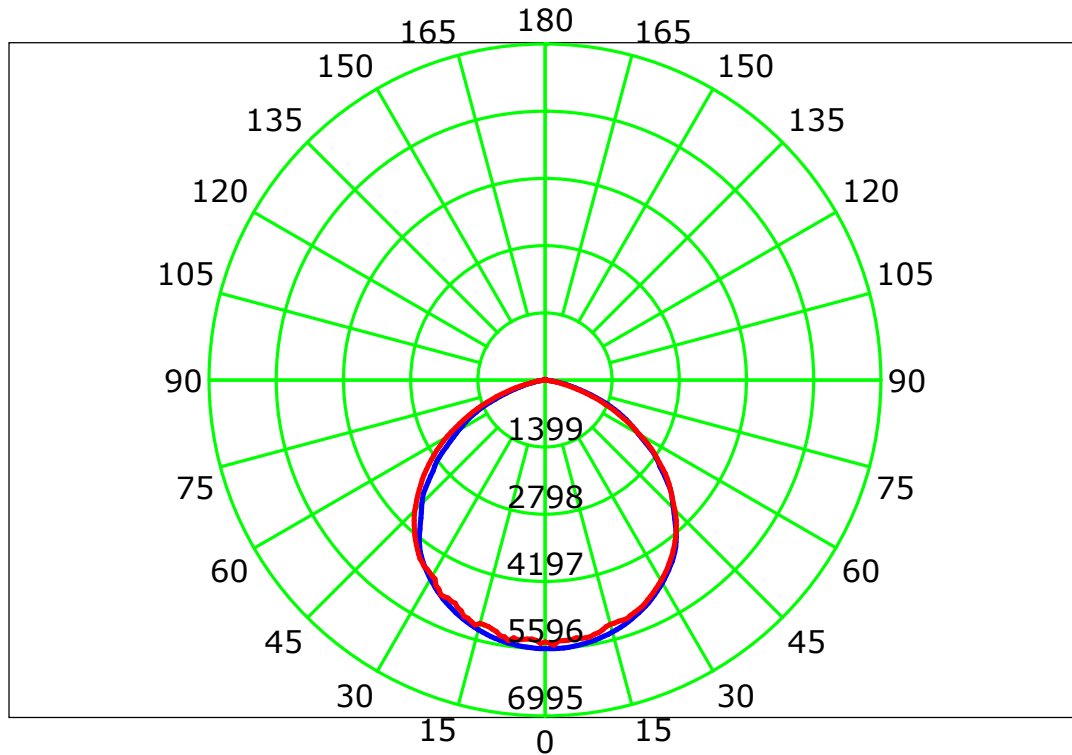
Test Device: LSG-1800B

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

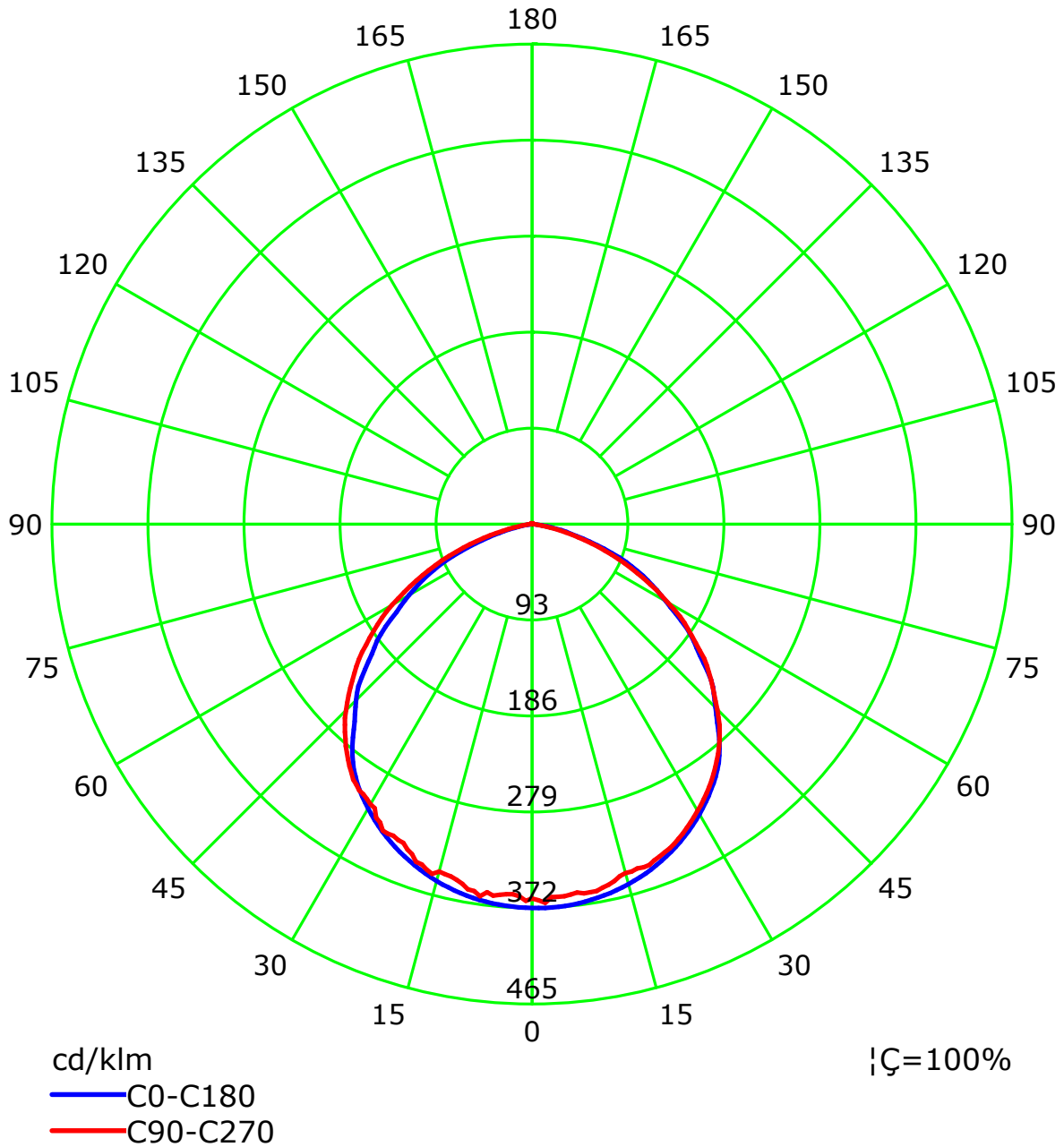
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Luminous Intensity Distribution Curve(cd/klm)



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

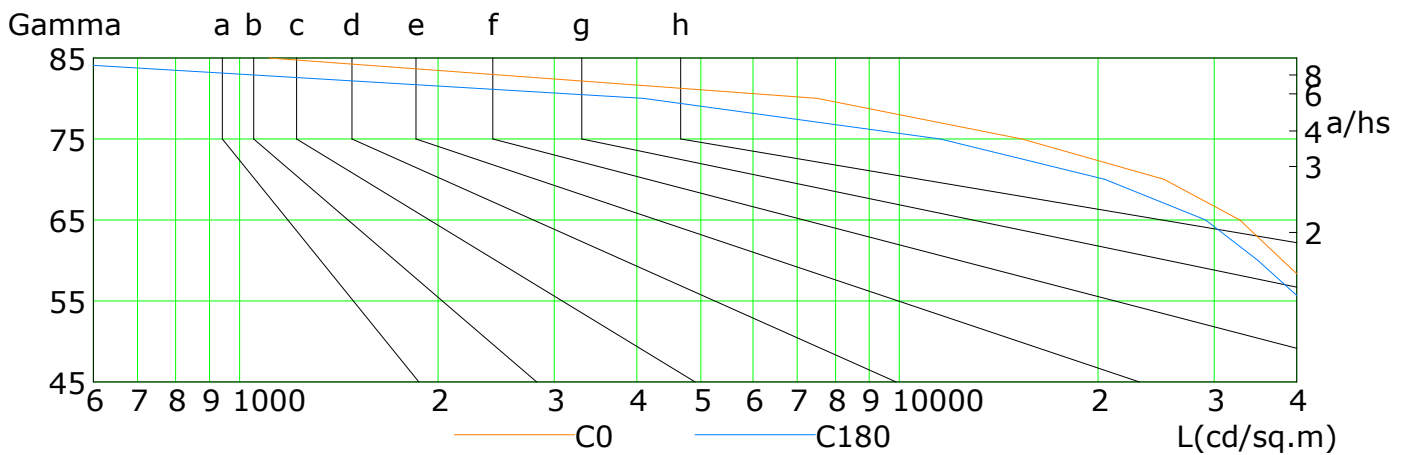
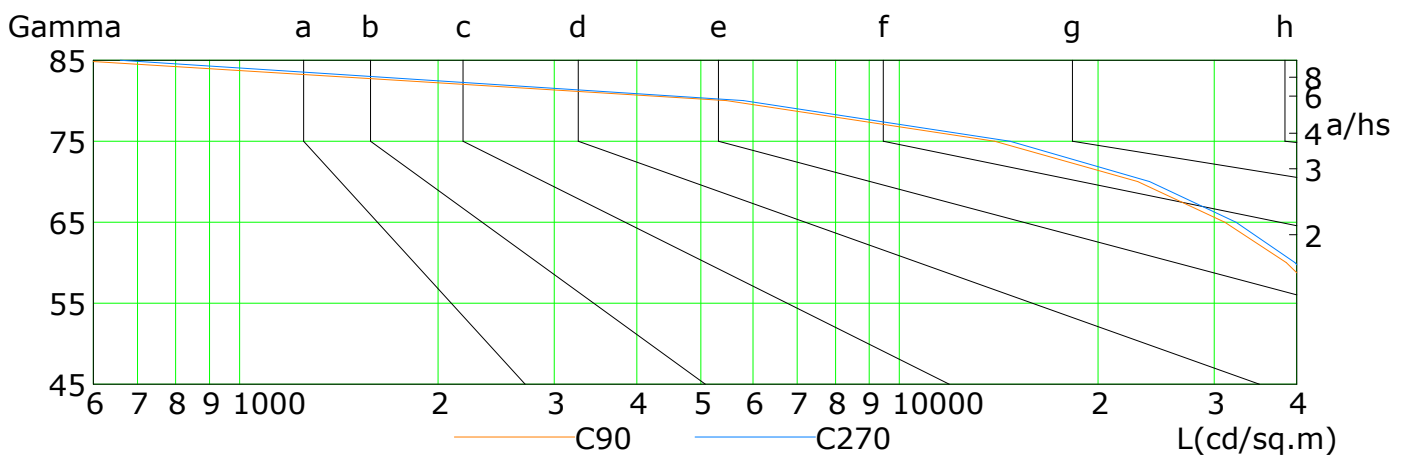
Humidity:

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	53284	49420	44412	38040	32795	25165	15335	7500	1109
C90	53823	49843	44773	38566	31122	22972	13943	5468	566
C180	51181	46087	40936	34932	29121	20487	11531	4089	397
C270	54083	50067	45435	39745	32371	23954	14710	5802	659

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

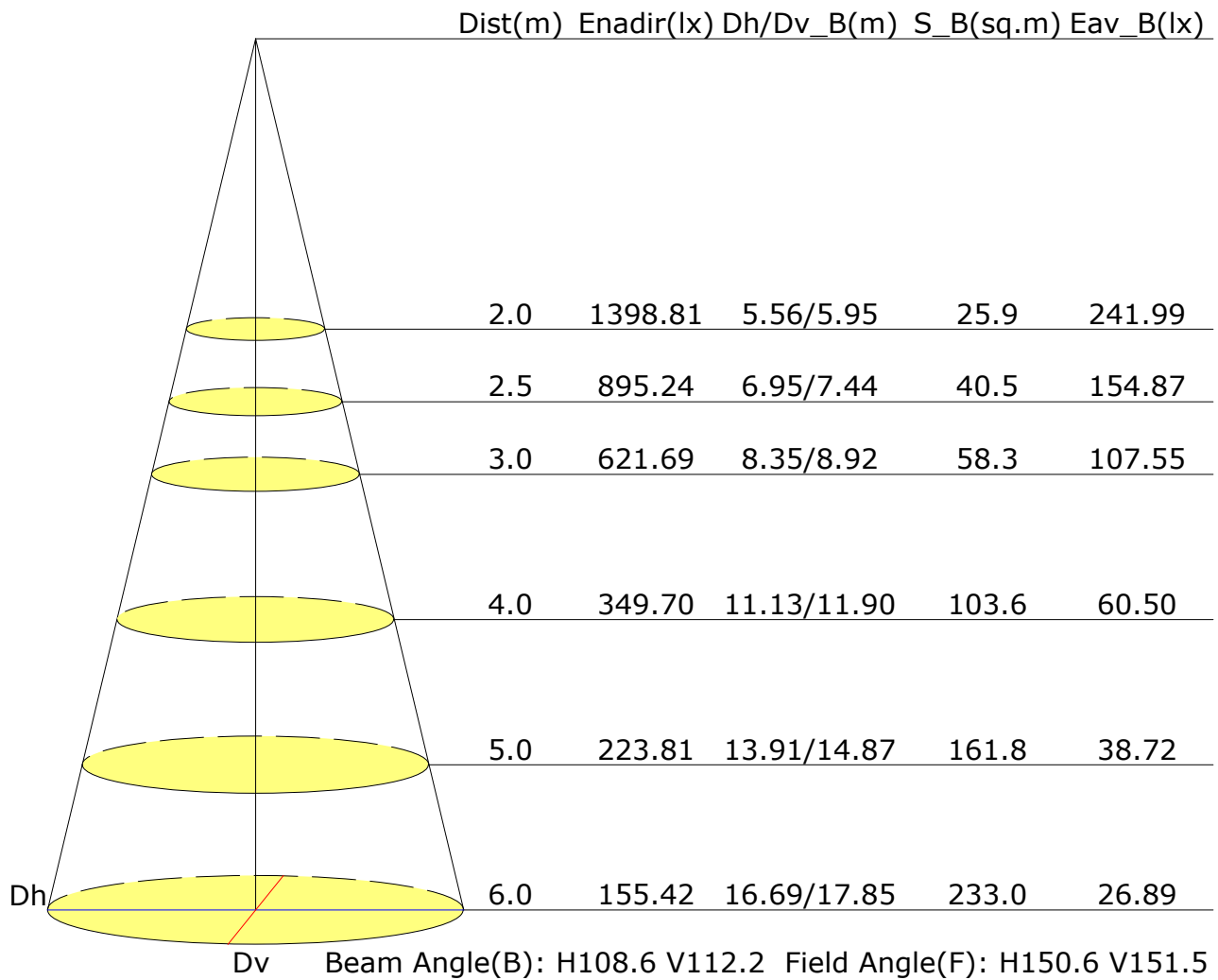
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Illuminance at a Distance



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:

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	25.6	26.9	25.9	27.2	27.4	25.7	27.0	26.0	27.3	27.5
3H	26.6	27.8	26.9	28.0	28.3	26.6	27.8	26.9	28.1	28.3
4H	26.8	27.9	27.1	28.2	28.5	26.8	27.9	27.1	28.2	28.5
6H	26.8	27.9	27.2	28.2	28.5	26.8	27.8	27.1	28.1	28.5
8H	26.8	27.8	27.2	28.1	28.5	26.7	27.8	27.1	28.1	28.4
12H	26.8	27.7	27.1	28.1	28.4	26.7	27.7	27.1	28.0	28.4
X=4H Y=2H	26.0	27.1	26.4	27.4	27.7	26.1	27.2	26.5	27.5	27.8
3H	27.1	28.1	27.5	28.4	28.8	27.1	28.1	27.5	28.4	28.8
4H	27.4	28.2	27.8	28.6	29.0	27.3	28.2	27.7	28.6	28.9
6H	27.5	28.2	27.9	28.6	29.0	27.4	28.1	27.8	28.5	28.9
8H	27.4	28.1	27.9	28.5	29.0	27.4	28.0	27.8	28.5	28.9
12H	27.4	28.0	27.9	28.5	28.9	27.3	27.9	27.8	28.4	28.8
X=8H Y=4H	27.4	28.1	27.8	28.5	28.9	27.4	28.1	27.8	28.5	28.9
6H	27.5	28.1	28.0	28.5	29.0	27.4	28.0	27.9	28.4	28.9
8H	27.5	28.0	28.0	28.5	28.9	27.4	27.9	27.9	28.4	28.9
12H	27.5	27.9	28.0	28.4	28.9	27.4	27.8	27.9	28.3	28.8
X=12H Y=4H	27.4	28.0	27.8	28.4	28.9	27.4	28.0	27.8	28.4	28.8
6H	27.5	28.0	28.0	28.4	28.9	27.4	27.9	27.9	28.4	28.9
8H	27.5	27.9	28.0	28.4	28.9	27.4	27.8	27.9	28.3	28.8
Variations with the observer position at spacings:										
S=1.0H	+0.2/-0.3					+0.2/-0.3				
S=1.5H	+0.5/-0.9					+0.4/-0.8				
S=2.0H	+1.1/-1.5					+1.1/-1.8				

Calculate in accordance with CIE Pub.117. The table is revised with 15019lm ($8\log(F/F_0) = 9.4$).

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)

Utilance U(F)											
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	0.54	0.65	0.73	0.79	0.87	0.92	0.96	1.01	1.04
	0.30		0.46	0.57	0.66	0.72	0.81	0.87	0.91	0.97	1.00
	0.20		0.40	0.51	0.60	0.66	0.76	0.82	0.87	0.93	0.97
0.50	0.50	0.20	0.52	0.63	0.71	0.76	0.84	0.89	0.92	0.97	1.00
	0.30		0.45	0.56	0.64	0.70	0.79	0.84	0.88	0.94	0.97
	0.20		0.40	0.51	0.59	0.65	0.74	0.80	0.85	0.91	0.94
0.30	0.50	0.20	0.51	0.61	0.68	0.74	0.81	0.86	0.89	0.93	0.96
	0.30		0.44	0.55	0.63	0.69	0.77	0.82	0.86	0.91	0.94
	0.20		0.39	0.50	0.58	0.64	0.73	0.79	0.83	0.88	0.91
0.00	0.00	0.00	0.37	0.48	0.55	0.61	0.69	0.75	0.79	0.84	0.87
Luminous ceiling reflectance(into room):0.30 Luminous ceiling reflectance(into void):0.20 Luminous ceiling transmittance:0.40 Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											

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(Wall)

Utilance U(W)												
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	1.03	0.85	0.72	0.62	0.49	0.40	0.34	0.26	0.21	
	0.30		0.86	0.73	0.63	0.55	0.44	0.37	0.31	0.24	0.20	
	0.20		0.74	0.64	0.56	0.49	0.40	0.34	0.29	0.23	0.19	
0.50	0.50	0.20	1.00	0.82	0.69	0.59	0.46	0.41	0.32	0.25	0.20	
	0.30		0.85	0.71	0.61	0.53	0.42	0.35	0.30	0.23	0.19	
	0.20		0.73	0.63	0.55	0.48	0.39	0.33	0.28	0.22	0.18	
0.30	0.50	0.20	0.97	0.79	0.66	0.57	0.44	0.36	0.31	0.23	0.19	
	0.30		0.83	0.69	0.59	0.52	0.41	0.34	0.29	0.22	0.18	
	0.20		0.73	0.62	0.54	0.47	0.38	0.32	0.27	0.21	0.18	
0.00	0.00	0.00	0.63	0.52	0.45	0.39	0.31	0.25	0.21	0.16	0.13	
Luminous ceiling reflectance(into room):0.30 Luminous ceiling reflectance(into void):0.20 Luminous ceiling transmittance:0.40 Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

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(Ceiling cavity)

Utilance U(C)											
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	0.19	0.20	0.20	0.21	0.21	0.22
	0.30		0.10	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.04	0.06	0.08	0.09	0.11	0.13	0.14	0.16	0.17
0.50	0.50	0.20	0.16	0.17	0.18	0.18	0.19	0.20	0.20	0.20	0.21
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.04	0.06	0.08	0.09	0.11	0.12	0.14	0.15	0.16
0.30	0.50	0.20	0.16	0.17	0.17	0.18	0.18	0.19	0.19	0.20	0.20
	0.30		0.09	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.18
	0.20		0.04	0.06	0.07	0.09	0.11	0.12	0.13	0.15	0.16
0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
Luminous ceiling reflectance(into room):0.30 Luminous ceiling reflectance(into void):0.20 Luminous ceiling transmittance:0.40 Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											

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: