

Report No.: 1

Test Time: 18.09.2019 12:07

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FD 112 100W 60gr

Luminous Width (mm): 277

Voltage: 220.6 V

Power: 99.29 W

Luminous Length (mm): 277

Luminous Height (mm): 123

Current: 0.454 A

Power Factor: 0.990

Photometric Results

CIE Class: Direct

Measurement Flux: 14312.3 lm

Downward Ratio: 99%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 105.4, 105.7, 105.9, 106.2

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 65.6, 65.3, 66.1, 66.4

Luminaire Efficacy Rating (LER): 144.20

Max. Intensity: 11712.26 cd

S/MH(C0/C180): 1.00

Total Rated Lamp Lumens: 14312.3 lm

Efficiency: 100%

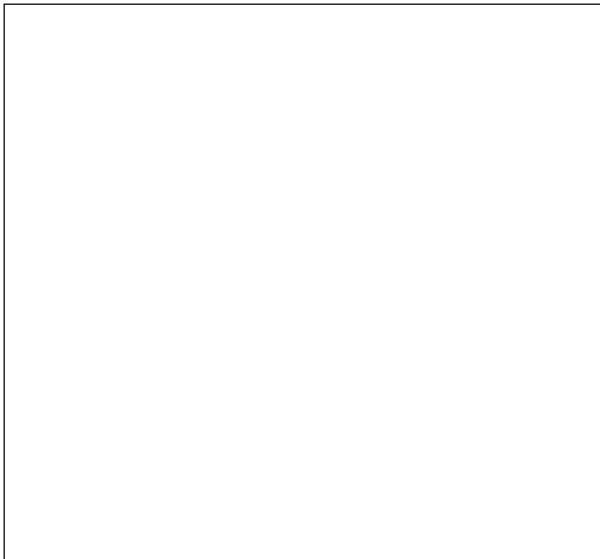
Upward Ratio: 1%

Central Intensity: 11704.3 cd

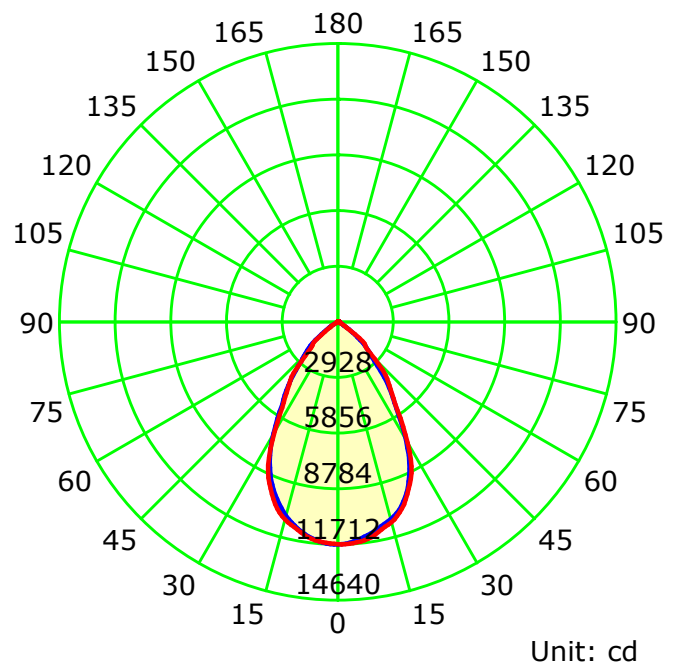
Pos of Max. Intensity: H157.5 V1

S/MH(C90/C270): 1.02

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

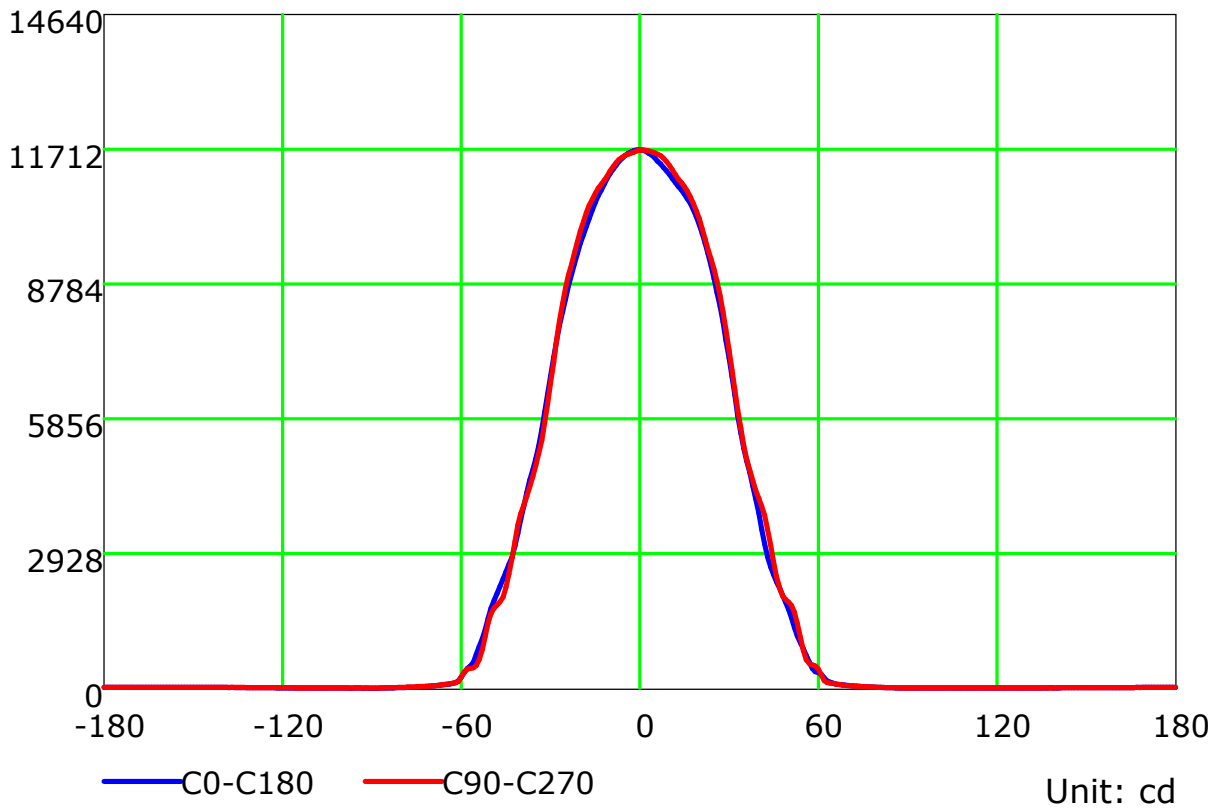
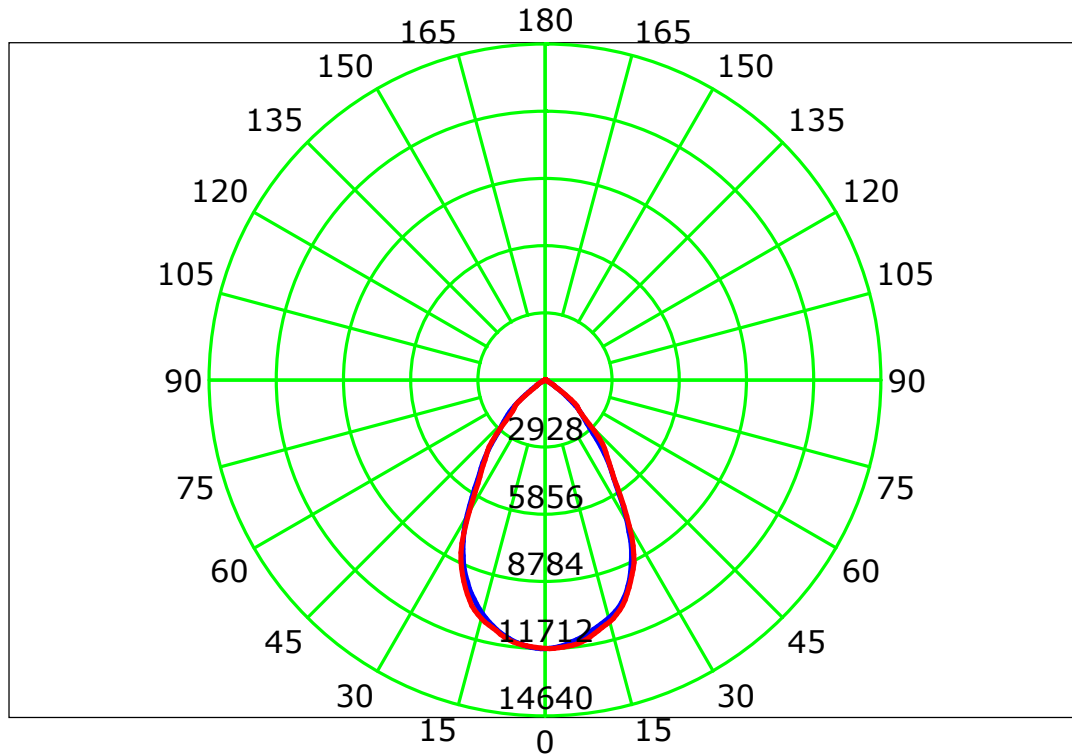
Test Device: LSG-1800B

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

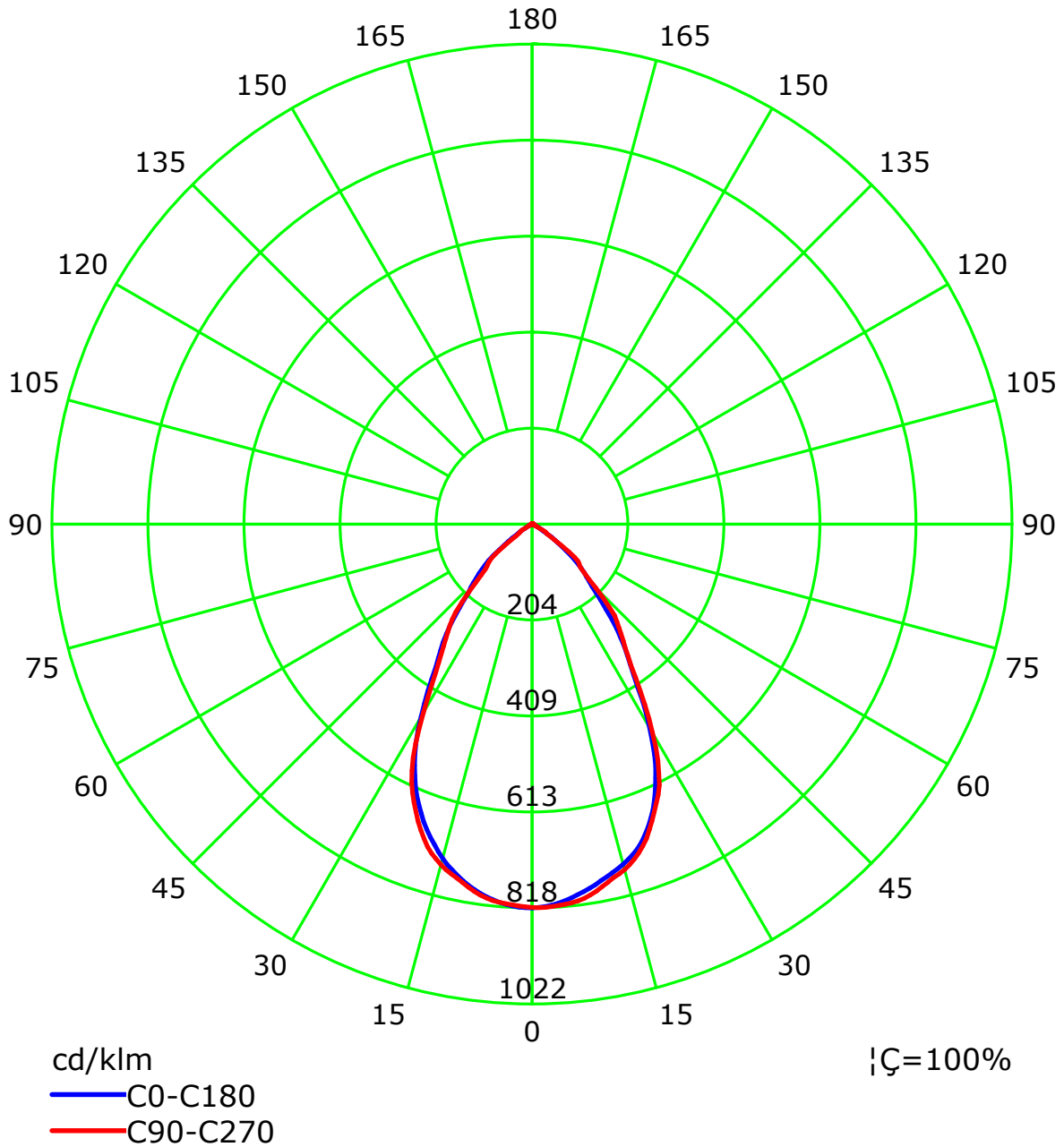
Test Device: LSG-1800B

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

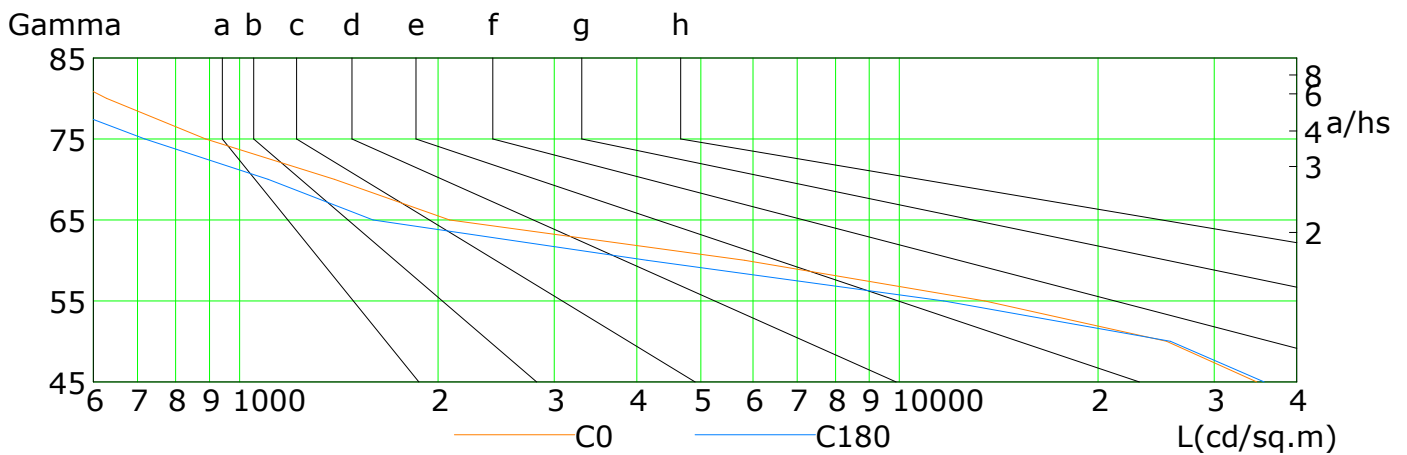
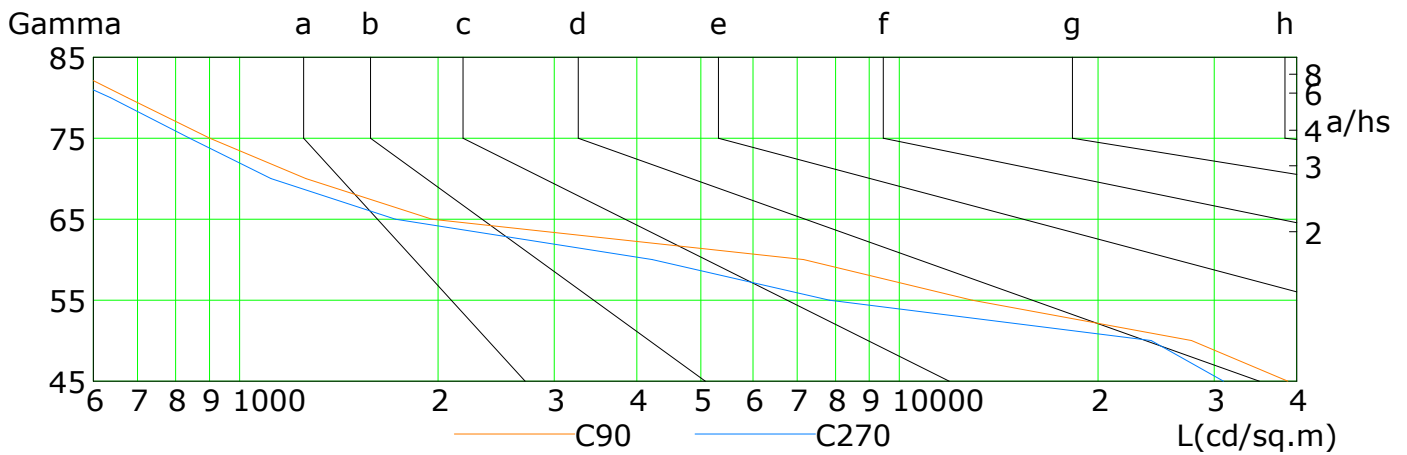
Humidity:

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	34795	25416	13472	5826	2081	1392	888	629	481
C90	38795	27719	12902	7160	1956	1260	902	676	509
C180	35726	25756	11680	4145	1593	1104	719	495	302
C270	31003	24068	7836	4219	1723	1116	841	637	472

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

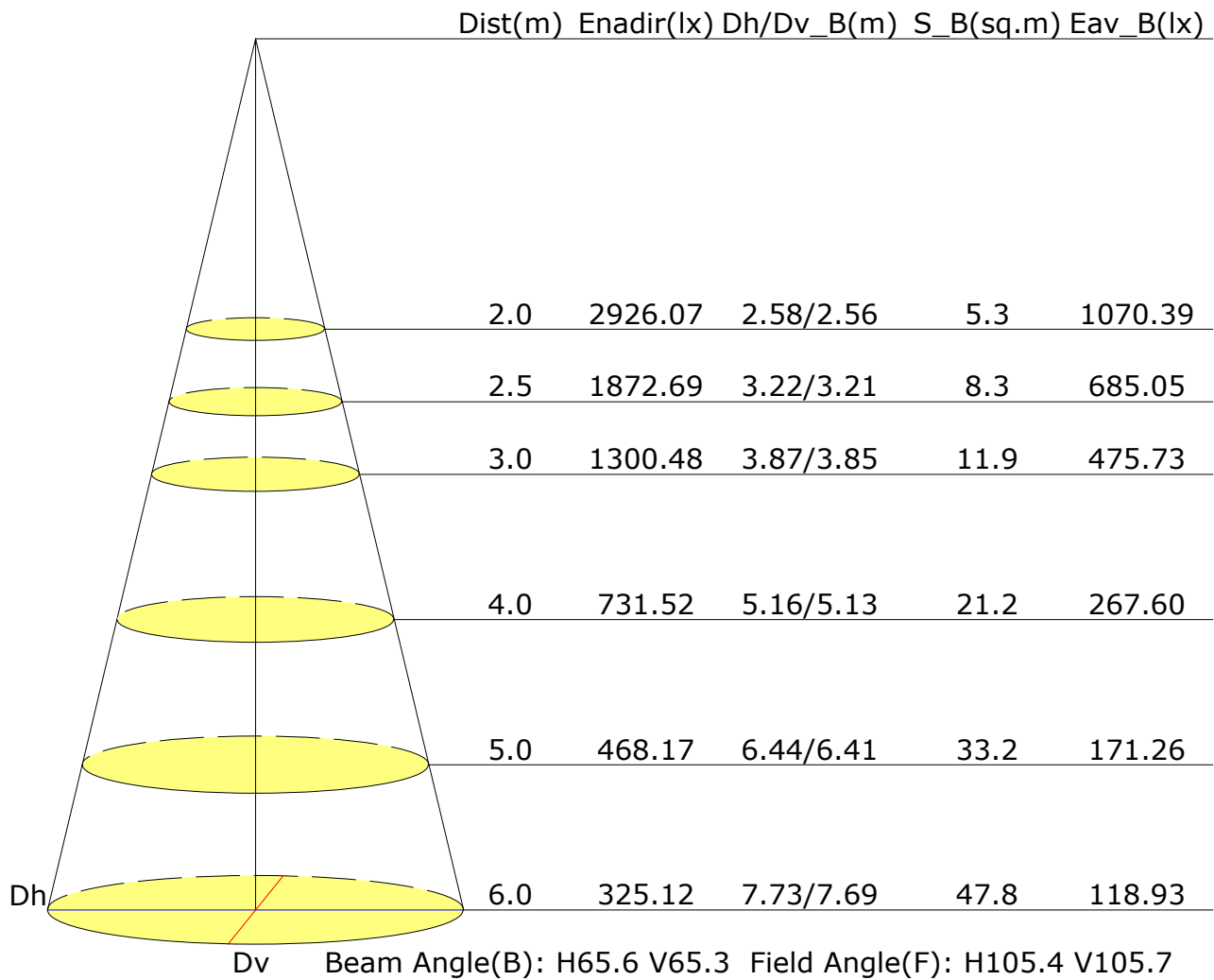
Test Device: LSG-1800B

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	20.8	21.8	21.1	22.0	22.2	20.6	21.6	20.9	21.8	22.1
3H	20.7	21.5	21.0	21.8	22.1	20.5	21.4	20.8	21.6	21.9
4H	20.6	21.4	20.9	21.7	22.0	20.4	21.2	20.8	21.5	21.8
6H	20.5	21.3	20.9	21.6	21.9	20.3	21.1	20.7	21.4	21.7
8H	20.5	21.2	20.8	21.5	21.8	20.3	21.0	20.7	21.4	21.7
12H	20.4	21.1	20.8	21.5	21.8	20.3	21.0	20.6	21.3	21.6
X=4H Y=2H	20.6	21.5	21.0	21.7	22.0	20.5	21.3	20.8	21.6	21.9
3H	20.5	21.2	20.9	21.5	21.9	20.3	21.0	20.7	21.4	21.7
4H	20.4	21.1	20.8	21.4	21.8	20.3	20.9	20.7	21.2	21.6
6H	20.4	20.9	20.8	21.3	21.7	20.2	20.7	20.6	21.1	21.5
8H	20.3	20.8	20.8	21.2	21.6	20.2	20.7	20.6	21.1	21.5
12H	20.3	20.7	20.7	21.2	21.6	20.1	20.6	20.6	21.0	21.4
X=8H Y=4H	20.3	20.8	20.8	21.2	21.6	20.2	20.7	20.6	21.1	21.5
6H	20.2	20.6	20.7	21.1	21.6	20.1	20.5	20.6	20.9	21.4
8H	20.2	20.6	20.7	21.0	21.5	20.0	20.4	20.5	20.9	21.3
12H	20.2	20.5	20.7	20.9	21.5	20.0	20.3	20.5	20.8	21.3
X=12H Y=4H	20.3	20.7	20.7	21.1	21.6	20.1	20.6	20.6	21.0	21.4
6H	20.2	20.5	20.7	21.0	21.5	20.0	20.4	20.5	20.8	21.3
8H	20.2	20.5	20.7	20.9	21.5	20.0	20.3	20.5	20.8	21.3
Variations with the observer position at spacings:										
S=1.0H	+1.9/-4.3					+2.0/-5.2				
S=1.5H	+4.2/-12.1					+4.4/-11.8				
S=2.0H	+6.1/-13.9					+6.4/-13.6				

Calculate in accordance with CIE Pub.117. The table is revised with 14312lm ($8\log(F/F_0) = 9.2$).

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	0.70	0.80	0.86	0.91	0.97	1.00	1.03	1.06	1.08
	0.30		0.64	0.74	0.81	0.86	0.92	0.96	0.99	1.03	1.06
	0.20		0.60	0.70	0.77	0.82	0.89	0.93	0.96	1.01	1.03
0.50	0.50	0.20	0.69	0.78	0.84	0.88	0.94	0.97	0.99	1.02	1.04
	0.30		0.63	0.73	0.79	0.84	0.90	0.94	0.96	1.00	1.02
	0.20		0.59	0.69	0.76	0.80	0.87	0.91	0.94	0.98	1.00
0.30	0.50	0.20	0.68	0.76	0.82	0.86	0.91	0.94	0.96	0.99	1.00
	0.30		0.63	0.72	0.78	0.82	0.88	0.91	0.94	0.97	0.99
	0.20		0.59	0.68	0.75	0.79	0.85	0.89	0.92	0.95	0.97
0.00	0.00	0.00	0.57	0.66	0.72	0.77	0.82	0.85	0.88	0.91	0.92
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	0.79	0.63	0.52	0.44	0.34	0.28	0.24	0.18	0.15	
	0.30		0.66	0.53	0.45	0.39	0.31	0.26	0.22	0.17	0.14	
	0.20		0.56	0.47	0.40	0.35	0.28	0.24	0.21	0.16	0.13	
0.50	0.50	0.20	0.76	0.60	0.49	0.42	0.32	0.30	0.22	0.17	0.14	
	0.30		0.64	0.52	0.44	0.38	0.30	0.24	0.21	0.16	0.13	
	0.20		0.56	0.46	0.39	0.34	0.27	0.23	0.20	0.15	0.13	
0.30	0.50	0.20	0.73	0.57	0.47	0.40	0.31	0.25	0.21	0.16	0.13	
	0.30		0.63	0.50	0.42	0.36	0.28	0.23	0.20	0.15	0.12	
	0.20		0.55	0.45	0.38	0.33	0.26	0.22	0.19	0.14	0.12	
0.00	0.00	0.00	0.43	0.34	0.28	0.23	0.18	0.15	0.12	0.09	0.08	
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	0.15	0.16	0.17	0.17	0.19	0.19	0.20	0.21	0.21
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.05	0.07	0.09	0.10	0.12	0.14	0.15	0.17	0.18
0.50	0.50	0.20	0.14	0.15	0.16	0.17	0.18	0.18	0.19	0.20	0.20
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.05	0.07	0.09	0.10	0.12	0.13	0.15	0.16	0.17
0.30	0.50	0.20	0.14	0.15	0.16	0.16	0.17	0.18	0.18	0.19	0.19
	0.30		0.09	0.10	0.12	0.13	0.14	0.15	0.16	0.17	0.18
	0.20		0.05	0.07	0.09	0.10	0.12	0.13	0.14	0.16	0.17
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: