

Report No.: 1

Test Time: 18.09.2019 10:07

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FD 112 150W 60gr

Luminous Length (mm): 316

Luminous Height (mm): 132

Current: 0.678 A

Power Factor: 0.978

Luminous Width (mm): 316

Voltage: 221.8 V

Power: 147.27 W

Photometric Results

CIE Class: Direct

Measurement Flux: 21056.2 lm

Downward Ratio: 100%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 104.8, 107.0, 106.6, 106.0

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 65.0, 67.6, 66.6, 66.5

Luminaire Efficacy Rating (LER): 143.03

Max. Intensity: 17105.75 cd

S/MH(C0/C180): 1.00

Total Rated Lamp Lumens: 21056.2 lm

Efficiency: 100%

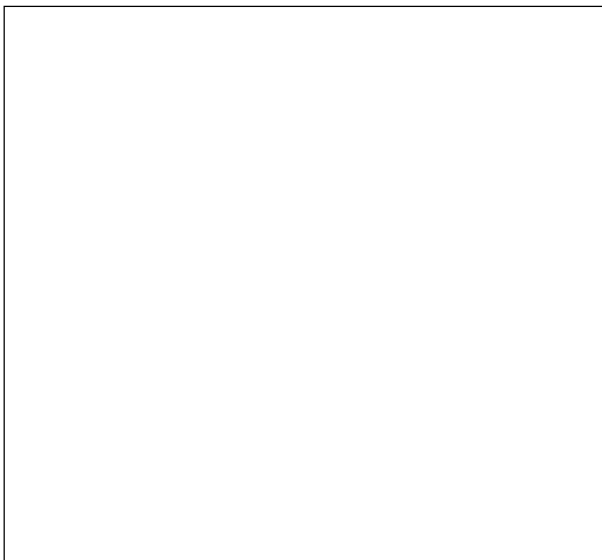
Upward Ratio: 0%

Central Intensity: 17042.07 cd

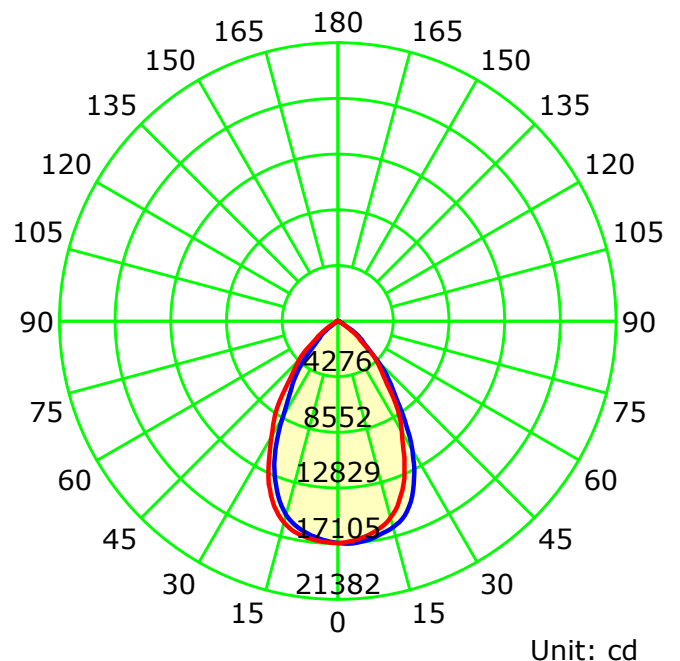
Pos of Max. Intensity: H0 V3

S/MH(C90/C270): 0.98

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

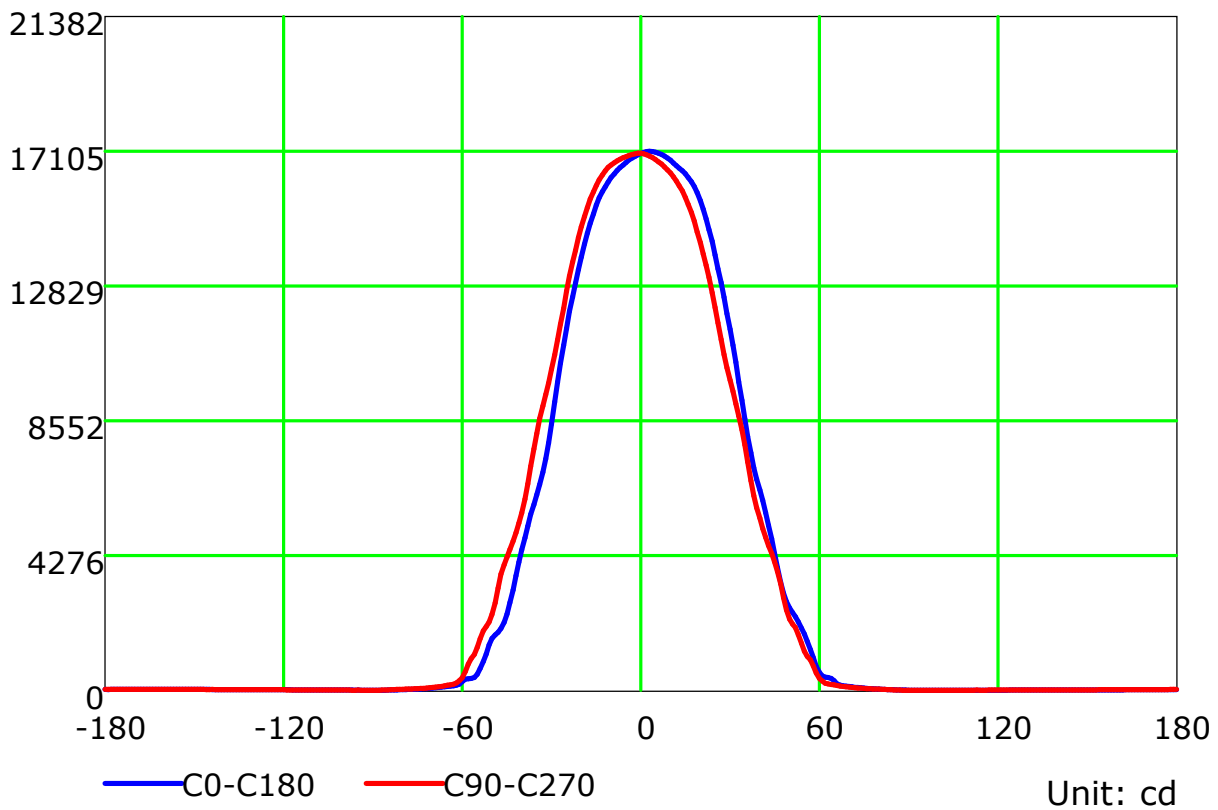
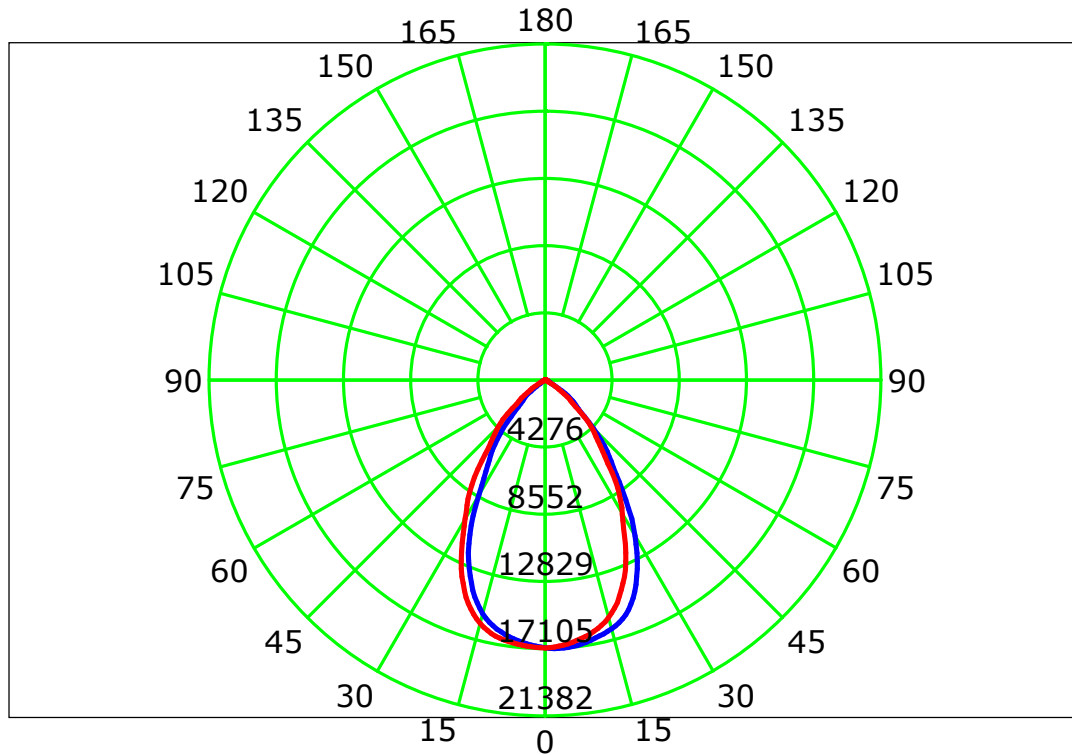
Test Device: LSG-1800B

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

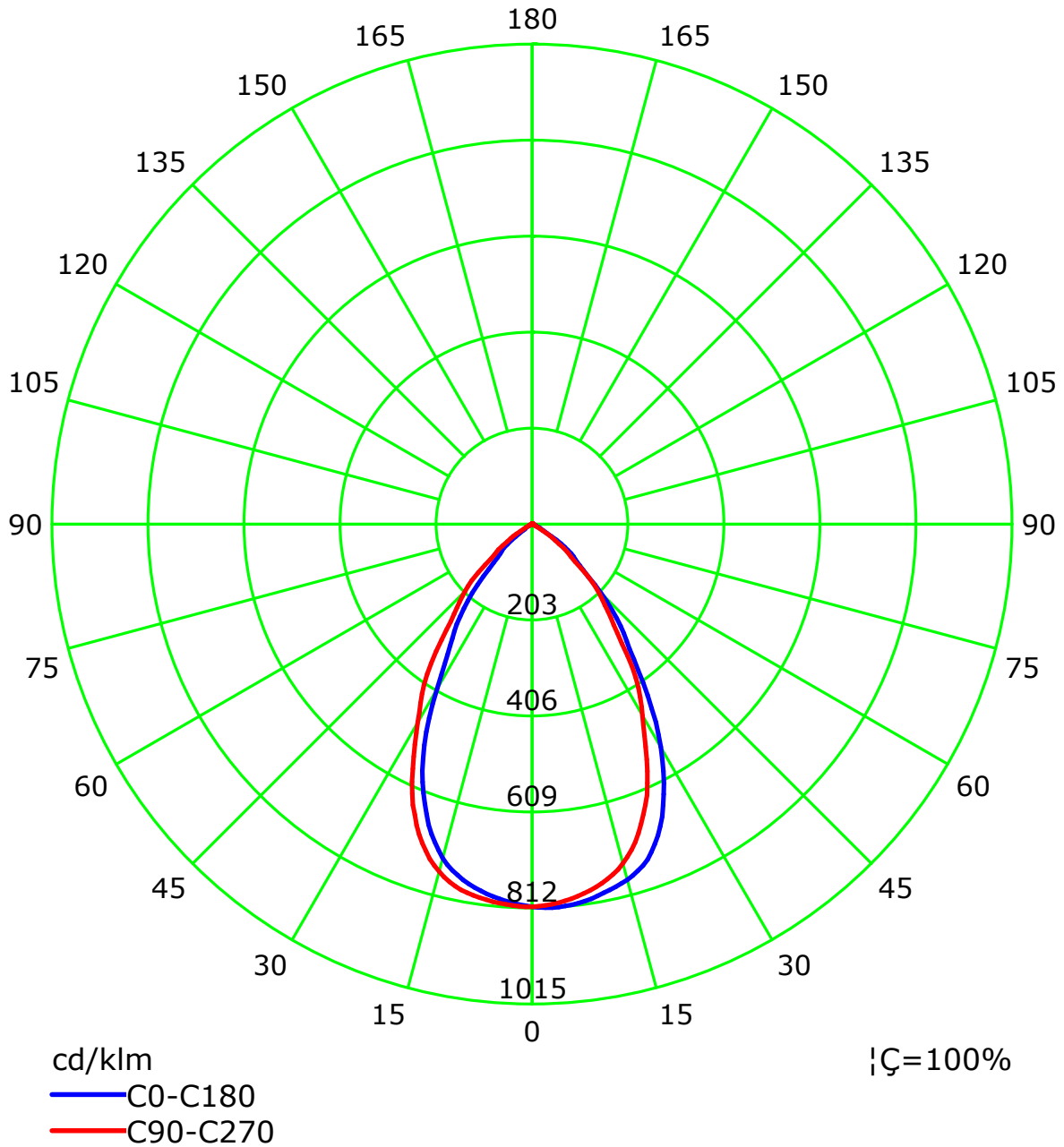
Test Device: LSG-1800B

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

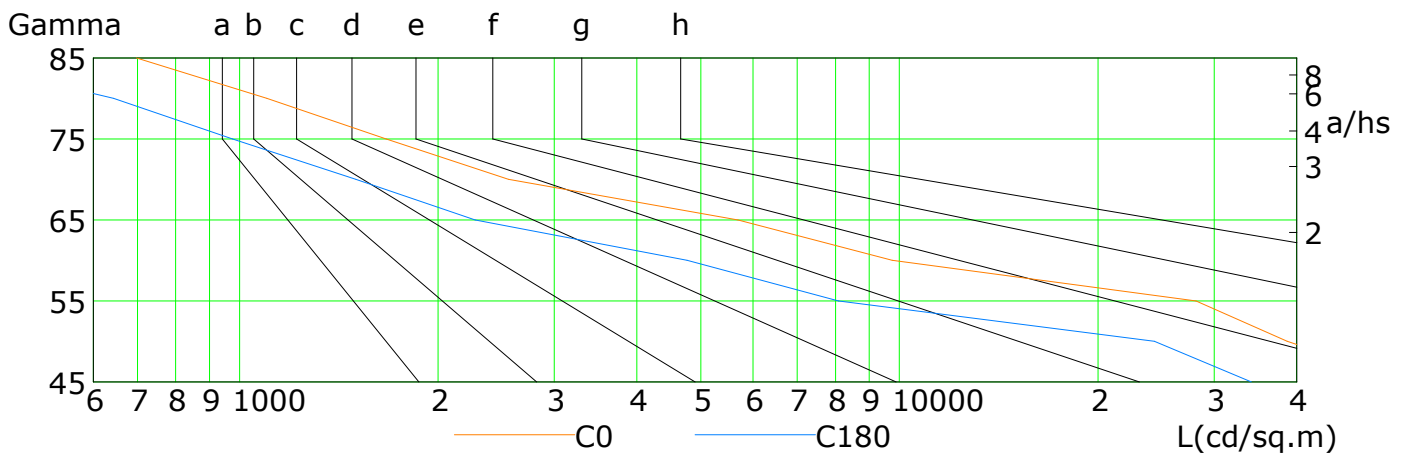
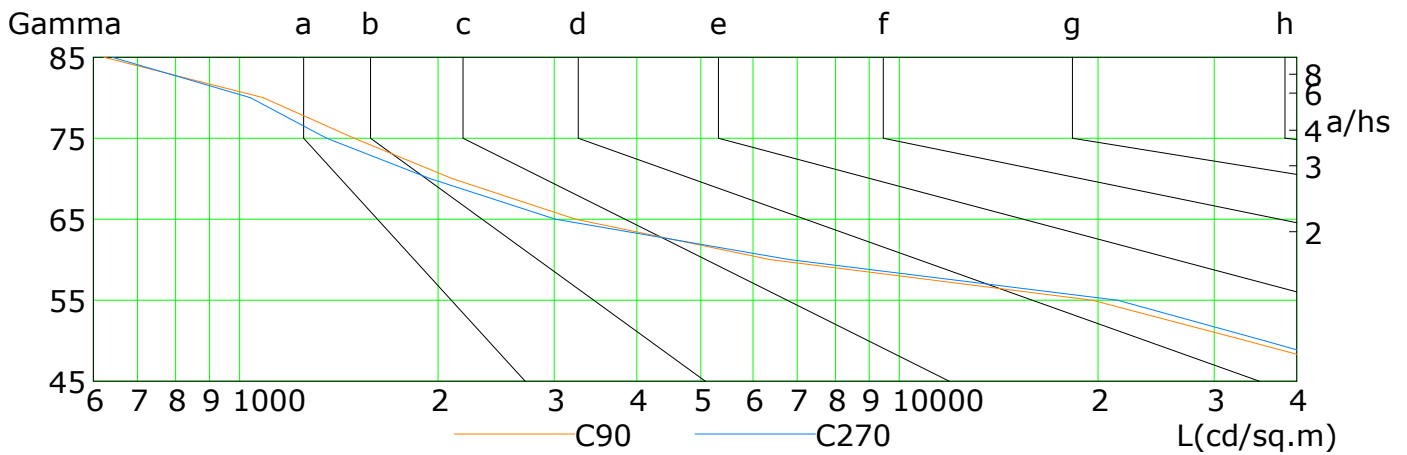
Humidity:

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	61226	38686	28139	9752	5690	2556	1668	1100	698
C90	57422	33486	19608	6368	3230	2100	1491	1085	623
C180	34147	24360	8086	4766	2276	1500	976	644	358
C270	59656	35668	21405	6806	3013	1944	1356	1037	641

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

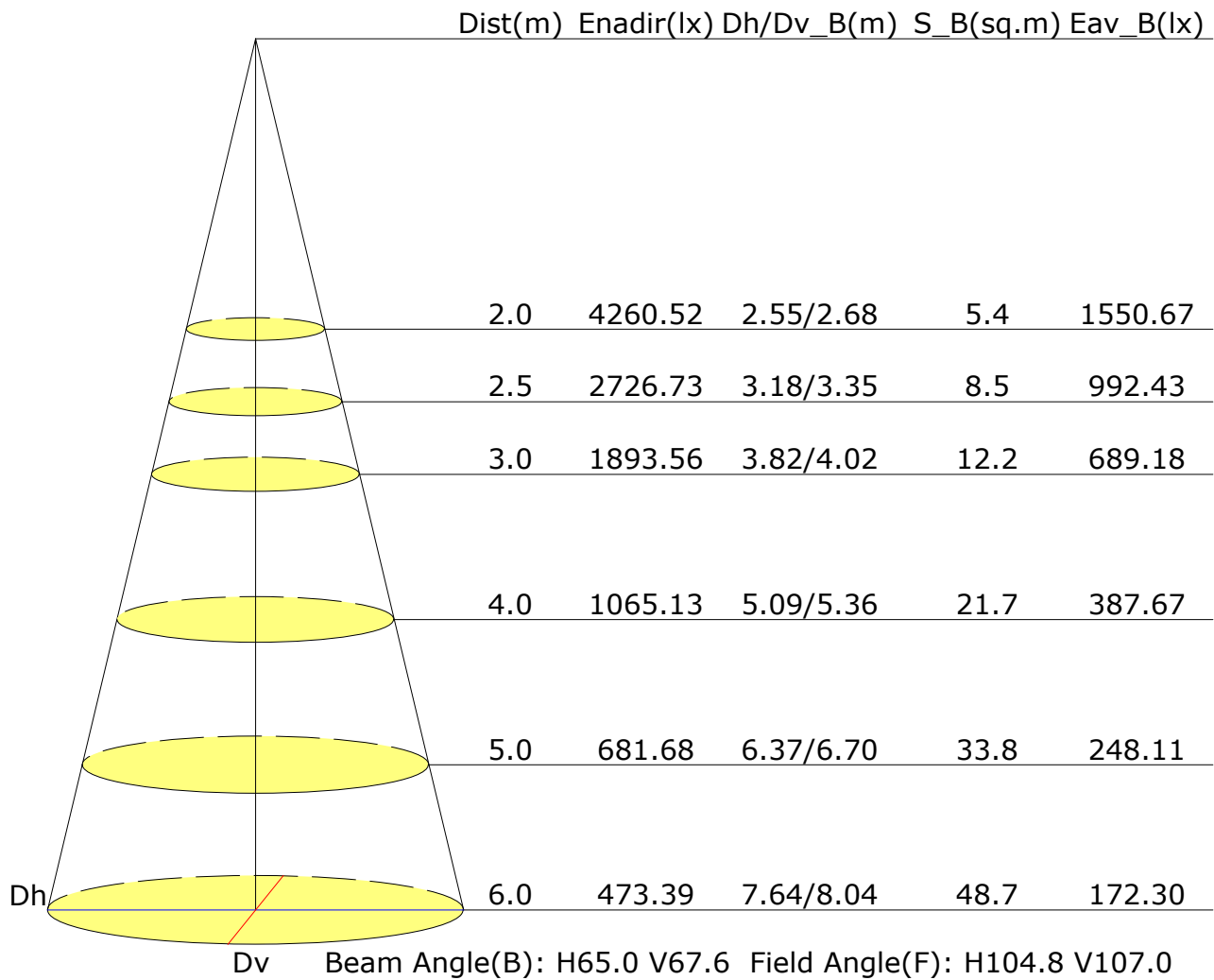
Test Device: LSG-1800B

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	23.2	24.2	23.5	24.4	24.6	22.8	23.8	23.1	24.0	24.2
3H	23.1	24.0	23.4	24.2	24.5	22.6	23.5	23.0	23.8	24.0
4H	23.0	23.8	23.3	24.1	24.4	22.6	23.4	22.9	23.7	24.0
6H	22.9	23.7	23.3	24.0	24.3	22.5	23.3	22.8	23.6	23.9
8H	22.9	23.6	23.3	24.0	24.3	22.5	23.2	22.8	23.5	23.8
12H	22.9	23.6	23.2	23.9	24.2	22.4	23.1	22.8	23.4	23.8
X=4H Y=2H	23.1	23.9	23.4	24.2	24.5	22.6	23.5	23.0	23.8	24.0
3H	22.9	23.7	23.3	24.0	24.3	22.5	23.2	22.9	23.5	23.9
4H	22.9	23.5	23.3	23.9	24.2	22.4	23.1	22.8	23.4	23.8
6H	22.8	23.4	23.2	23.7	24.1	22.4	22.9	22.8	23.3	23.7
8H	22.8	23.3	23.2	23.7	24.1	22.3	22.8	22.8	23.2	23.7
12H	22.7	23.2	23.2	23.6	24.0	22.3	22.7	22.7	23.2	23.6
X=8H Y=4H	22.8	23.3	23.2	23.7	24.1	22.3	22.8	22.8	23.2	23.7
6H	22.7	23.1	23.2	23.5	24.0	22.3	22.7	22.7	23.1	23.6
8H	22.7	23.0	23.1	23.5	24.0	22.2	22.6	22.7	23.0	23.5
12H	22.6	22.9	23.1	23.4	23.9	22.2	22.5	22.7	23.0	23.5
X=12H Y=4H	22.7	23.2	23.2	23.6	24.0	22.3	22.7	22.7	23.2	23.6
6H	22.7	23.0	23.1	23.5	23.9	22.2	22.6	22.7	23.0	23.5
8H	22.6	22.9	23.1	23.4	23.9	22.2	22.5	22.7	23.0	23.5
Variations with the observer position at spacings:										
S=1.0H	+1.8/-3.8					+1.6/-3.8				
S=1.5H	+4.0/-10.3					+3.8/-11.8				
S=2.0H	+5.9/-13.2					+5.7/-13.8				

Calculate in accordance with CIE Pub.117. The table is revised with 21056lm ($8\log(F/F_0) = 10.6$).

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)

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	0.96	1.00	1.03	1.06	1.08
	0.30		0.64	0.74	0.81	0.85	0.92	0.96	0.99	1.03	1.05
	0.20		0.59	0.69	0.76	0.81	0.88	0.93	0.96	1.00	1.03
0.50	0.50	0.20	0.69	0.78	0.84	0.88	0.93	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	0.75	0.80	0.87	0.91	0.94	0.98	1.00
0.30	0.50	0.20	0.67	0.76	0.82	0.86	0.91	0.94	0.96	0.98	1.00
	0.30		0.62	0.72	0.78	0.82	0.88	0.91	0.94	0.97	0.98
	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	0.76	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	0.45	0.35	0.28	0.24	0.18	0.15	
	0.30		0.66	0.54	0.45	0.39	0.31	0.26	0.22	0.17	0.14	
	0.20		0.57	0.47	0.40	0.35	0.29	0.24	0.21	0.16	0.13	
0.50	0.50	0.20	0.76	0.60	0.50	0.42	0.33	0.30	0.22	0.17	0.14	
	0.30		0.64	0.52	0.44	0.38	0.30	0.25	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	0.74	0.57	0.47	0.40	0.31	0.25	0.21	0.16	0.13	
	0.30		0.63	0.51	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	0.15	0.12	
0.00	0.00	0.00	0.43	0.34	0.28	0.24	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: