

Report No.: 1

Test Time: 18.09.2019 14:34

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FD 112 100W 90gr

Luminous Width (mm): 277

Voltage: 221.8 V

Power: 100.11 W

Luminous Length (mm): 277

Luminous Height (mm): 123

Current: 0.455 A

Power Factor: 0.991

Photometric Results

CIE Class: Direct

Measurement Flux: 14436.9 lm

Downward Ratio: 99%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 121.5, 120.7, 121.5, 121.5

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 92.7, 91.6, 91.3, 92.0

Luminaire Efficacy Rating (LER): 144.26

Max. Intensity: 7520.88 cd

S/MH(C0/C180): 1.35

Total Rated Lamp Lumens: 14436.9 lm

Efficiency: 100%

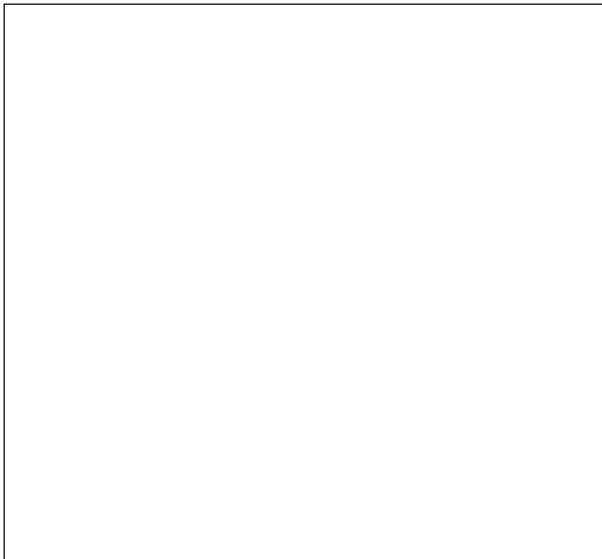
Upward Ratio: 1%

Central Intensity: 6679.29 cd

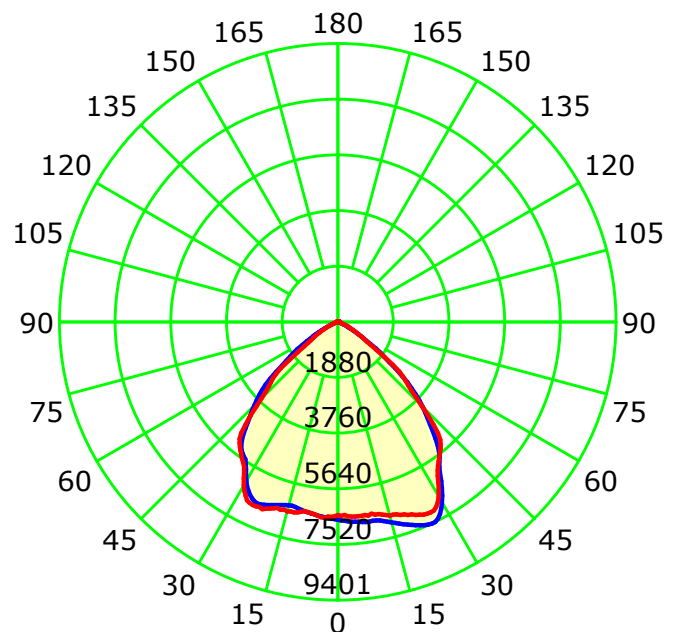
Pos of Max. Intensity: H0 V25

S/MH(C90/C270): 1.38

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

— 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

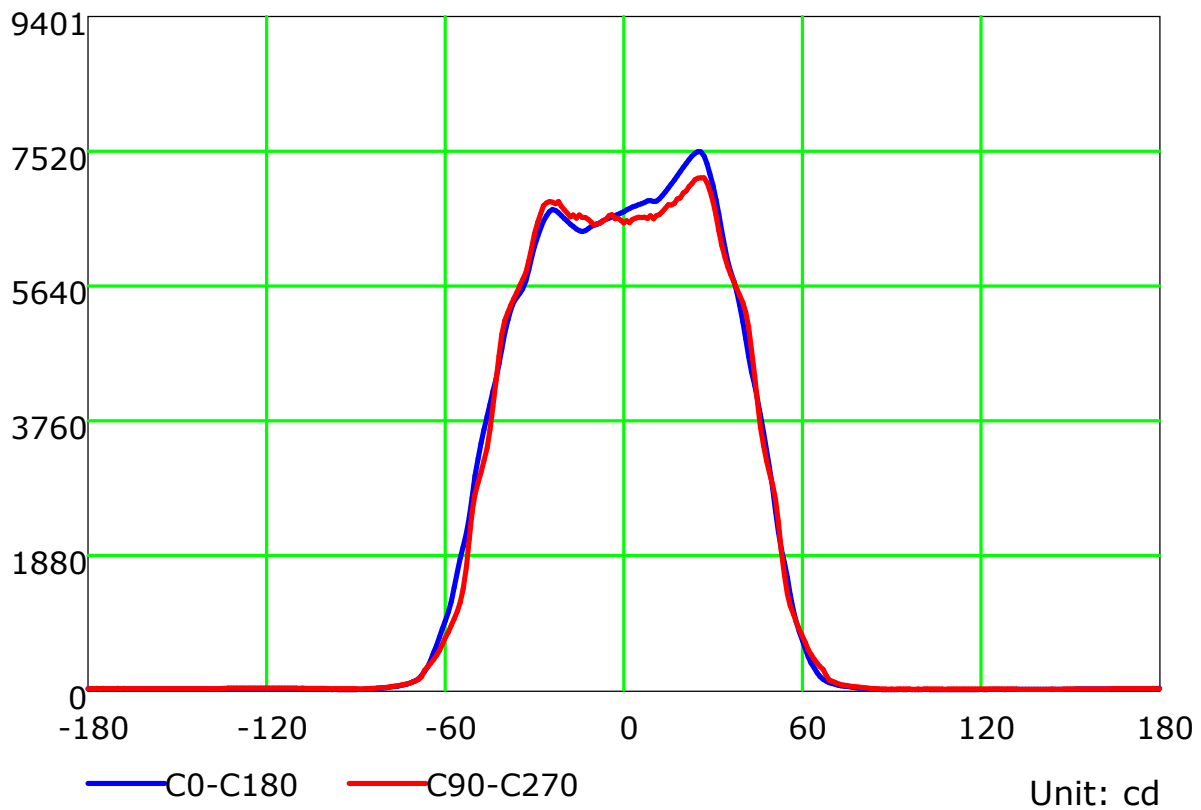
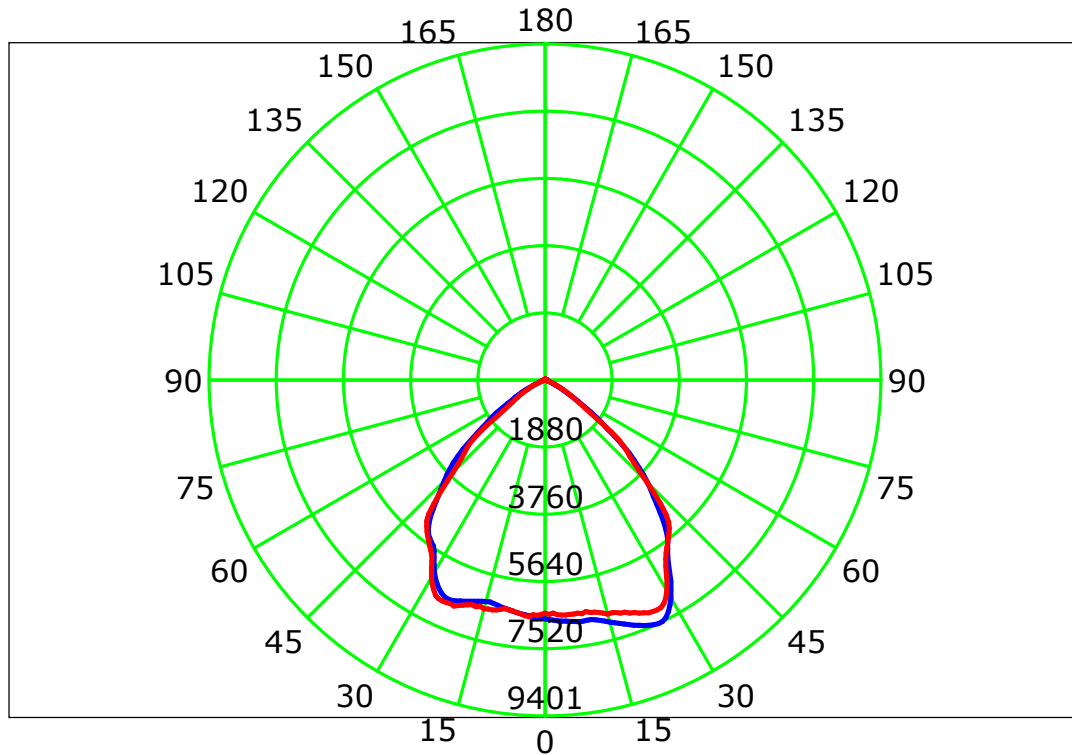
Test Device: LSG-1800B

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

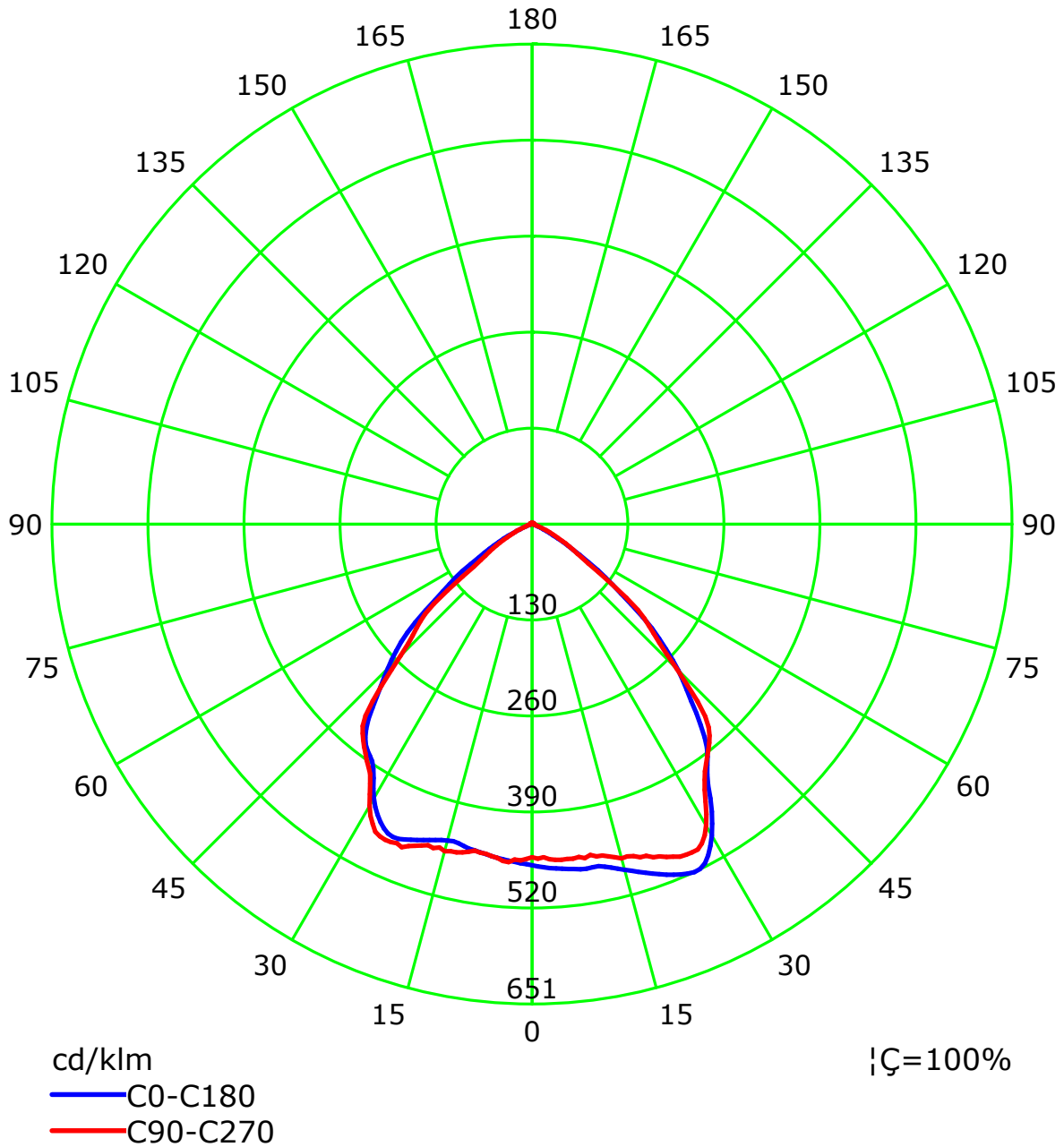
Test Device: LSG-1800B

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

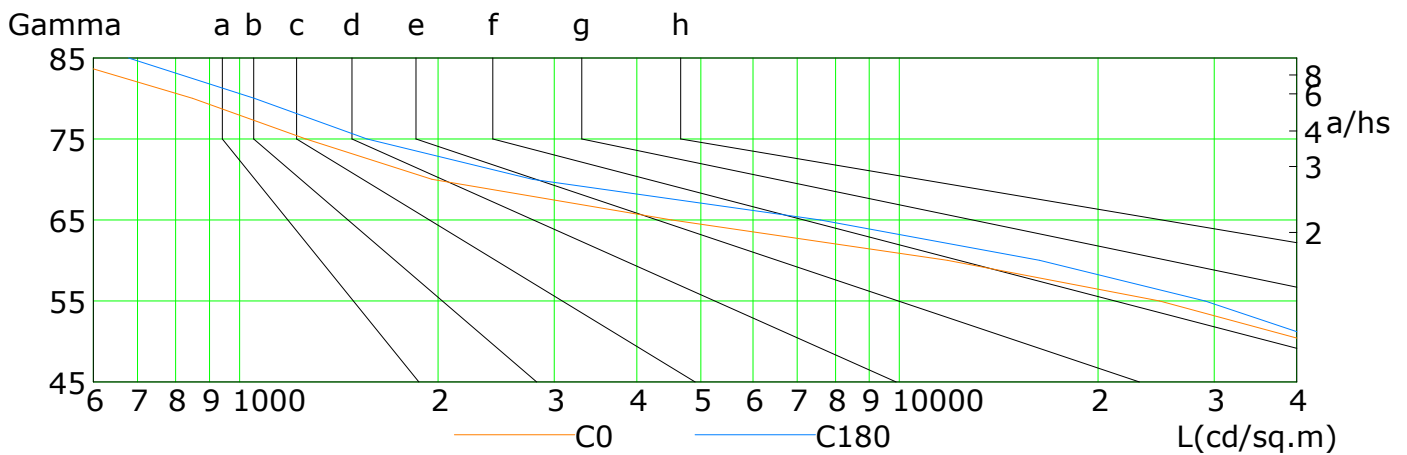
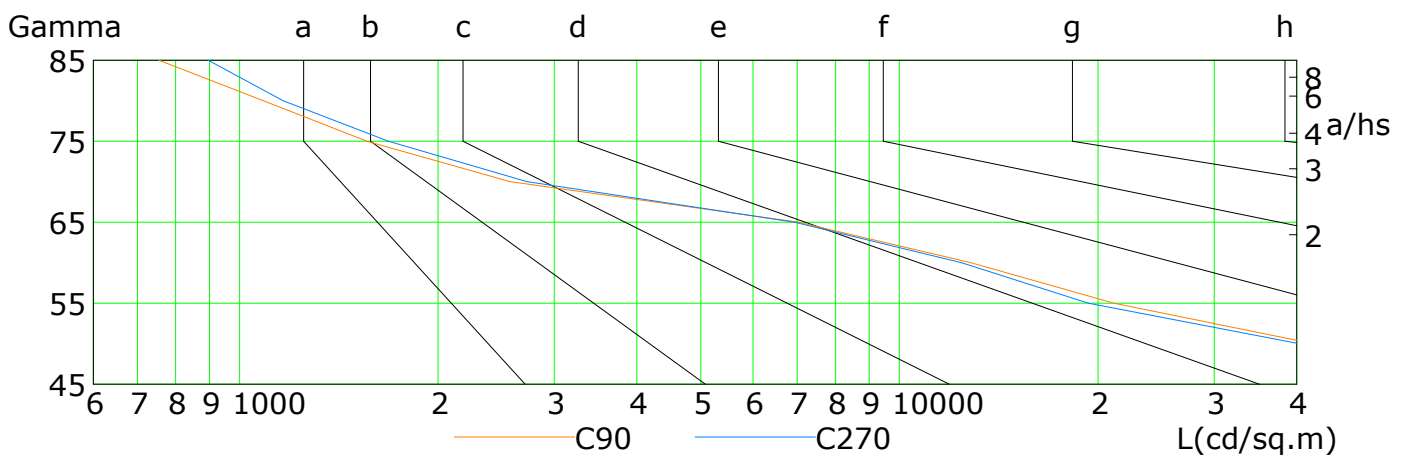
Humidity:

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	57118	41832	24790	11821	4520	1956	1261	849	528
C90	56554	42486	21146	12812	7029	2568	1559	1085	755
C180	56296	44336	29042	16304	7587	2778	1559	1053	679
C270	51337	40484	19340	12404	6937	2724	1681	1163	896

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

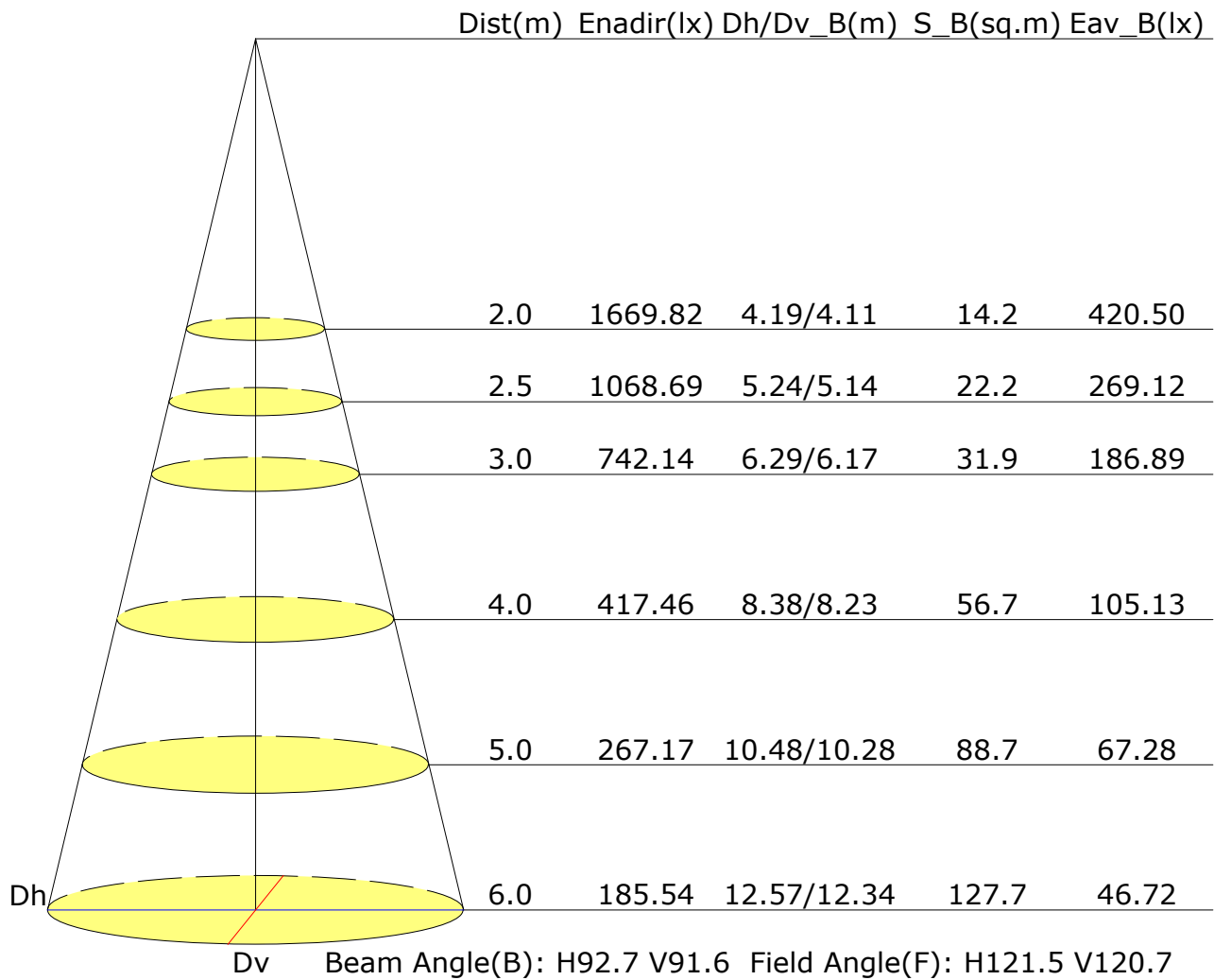
Test Device: LSG-1800B

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	24.3	23.5	24.5	24.8	23.3	24.4	23.6	24.7	24.9
3H	23.1	24.1	23.4	24.3	24.6	23.2	24.2	23.5	24.5	24.7
4H	23.0	23.9	23.3	24.2	24.5	23.1	24.1	23.5	24.4	24.7
6H	22.9	23.8	23.3	24.1	24.4	23.0	23.9	23.4	24.2	24.6
8H	22.9	23.7	23.2	24.0	24.4	23.0	23.8	23.4	24.2	24.5
12H	22.8	23.6	23.2	24.0	24.3	23.0	23.8	23.4	24.1	24.5
X=4H Y=2H	23.1	24.0	23.4	24.3	24.6	23.2	24.1	23.5	24.4	24.7
3H	22.9	23.7	23.3	24.1	24.4	23.1	23.9	23.5	24.2	24.5
4H	22.9	23.6	23.3	23.9	24.3	23.0	23.7	23.4	24.1	24.5
6H	22.8	23.4	23.2	23.8	24.2	22.9	23.6	23.4	23.9	24.4
8H	22.8	23.3	23.2	23.7	24.2	22.9	23.5	23.3	23.9	24.3
12H	22.7	23.2	23.2	23.7	24.1	22.9	23.4	23.3	23.8	24.3
X=8H Y=4H	22.8	23.3	23.2	23.7	24.2	22.9	23.5	23.3	23.9	24.3
6H	22.7	23.1	23.2	23.6	24.1	22.8	23.3	23.3	23.7	24.2
8H	22.7	23.1	23.2	23.5	24.0	22.8	23.2	23.3	23.7	24.1
12H	22.6	23.0	23.1	23.5	24.0	22.8	23.1	23.3	23.6	24.1
X=12H Y=4H	22.7	23.2	23.2	23.7	24.1	22.9	23.4	23.3	23.8	24.2
6H	22.7	23.1	23.2	23.5	24.0	22.8	23.2	23.3	23.6	24.1
8H	22.6	23.0	23.1	23.5	24.0	22.8	23.1	23.3	23.6	24.1
Variations with the observer position at spacings:										
S=1.0H	+1.3/-3.6					+1.3/-3.2				
S=1.5H	+3.1/-8.2					+3.1/-7.3				
S=2.0H	+5.0/-13.4					+5.0/-12.2				

Calculate in accordance with CIE Pub.117. The table is revised with 14437Im ($8\log(F/F_0) = 9.3$).

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)

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	0.63	0.74	0.81	0.86	0.93	0.98	1.00	1.04	1.07
	0.30		0.56	0.67	0.75	0.81	0.88	0.93	0.96	1.01	1.04
	0.20		0.51	0.62	0.70	0.76	0.84	0.89	0.93	0.98	1.01
0.50	0.50	0.20	0.61	0.72	0.79	0.84	0.90	0.94	0.97	1.00	1.02
	0.30		0.55	0.66	0.73	0.79	0.86	0.90	0.94	0.98	1.00
	0.20		0.50	0.62	0.69	0.75	0.82	0.87	0.91	0.95	0.98
0.30	0.50	0.20	0.60	0.70	0.77	0.81	0.87	0.91	0.94	0.97	0.99
	0.30		0.54	0.65	0.72	0.77	0.84	0.88	0.91	0.95	0.97
	0.20		0.50	0.61	0.68	0.74	0.81	0.85	0.89	0.93	0.95
0.00	0.00	0.00	0.48	0.59	0.66	0.71	0.78	0.82	0.85	0.88	0.91
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	0.90	0.72	0.60	0.51	0.39	0.32	0.27	0.21	0.17
	0.30		0.75	0.61	0.52	0.45	0.36	0.30	0.25	0.20	0.16
	0.20		0.64	0.54	0.46	0.40	0.33	0.27	0.24	0.18	0.15
0.50	0.50	0.20	0.87	0.69	0.57	0.48	0.37	0.34	0.26	0.20	0.16
	0.30		0.73	0.60	0.50	0.43	0.34	0.28	0.24	0.19	0.15
	0.20		0.64	0.53	0.45	0.39	0.31	0.26	0.23	0.18	0.15
0.30	0.50	0.20	0.84	0.66	0.54	0.46	0.35	0.29	0.24	0.18	0.15
	0.30		0.72	0.58	0.49	0.42	0.33	0.27	0.23	0.18	0.14
	0.20		0.63	0.52	0.44	0.38	0.30	0.25	0.22	0.17	0.14
0.00	0.00	0.00	0.52	0.41	0.34	0.29	0.22	0.18	0.15	0.12	0.09
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	0.16	0.17	0.17	0.18	0.19	0.20	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	0.08	0.10	0.12	0.13	0.15	0.16	0.17
0.50	0.50	0.20	0.15	0.16	0.17	0.17	0.18	0.19	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	0.08	0.10	0.12	0.13	0.14	0.16	0.17
0.30	0.50	0.20	0.15	0.15	0.16	0.17	0.18	0.18	0.19	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	0.08	0.09	0.11	0.13	0.14	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: