

Report No.: 1

Test Time: 16.09.2019 09:42

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FW 150 100W 4000K Luminous Length (mm): 604

Luminous Width (mm): 153

Luminous Height (mm): 80

Voltage: 221.7 V

Current: 0.463 A

Power: 100.79 W

Power Factor: 0.980

Photometric Results

CIE Class: Direct

Total Rated Lamp Lumens: 14755.9 lm

Measurement Flux: 14755.9 lm

Efficiency: 100%

Downward Ratio: 99%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 149.1, 135.6, 137.2, 136.8

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 140.6, 53.5, 69.6, 68.1

Luminaire Efficacy Rating (LER): 146.45

Central Intensity: 2748.45 cd

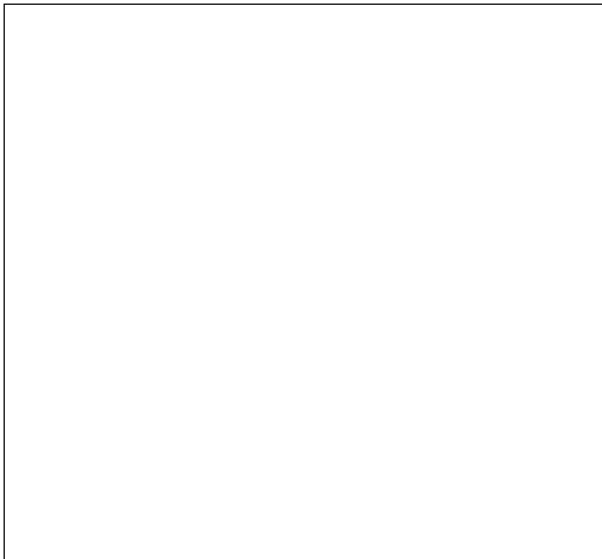
Max. Intensity: 12169.75 cd

Pos of Max. Intensity: H337.5 V60

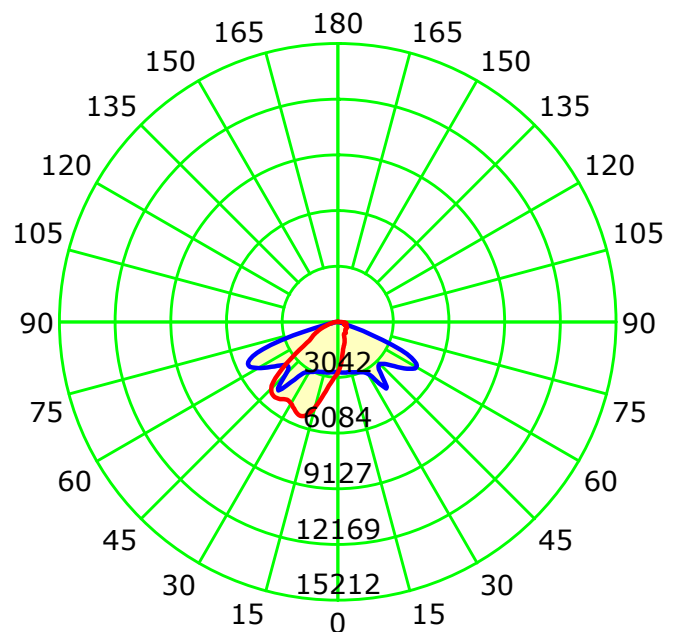
S/MH(C0/C180): 1.95

S/MH(C90/C270): 1.64

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 22.5

Gamma Plane (°):0.0-180.0:1.0

Test Lab:

Test Device: LSG-1800B

Test Type: TYPE C

Distance: 12.677 m

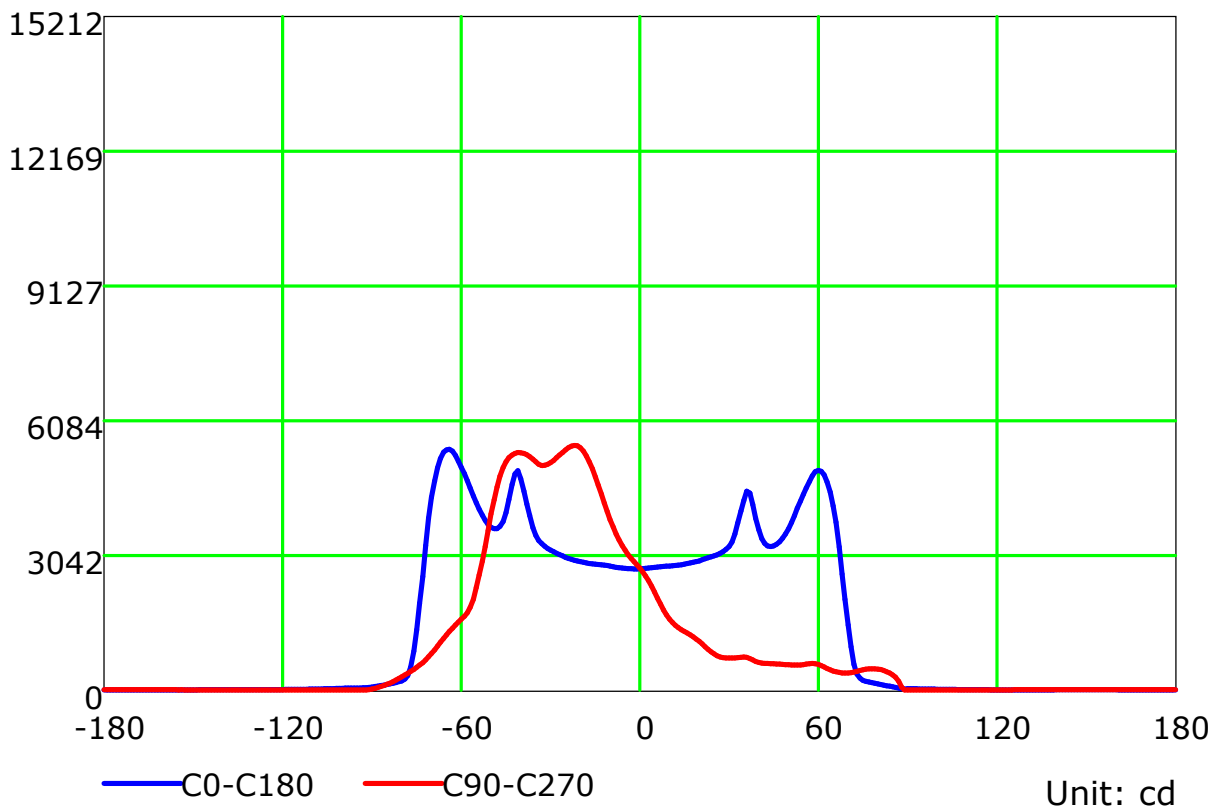
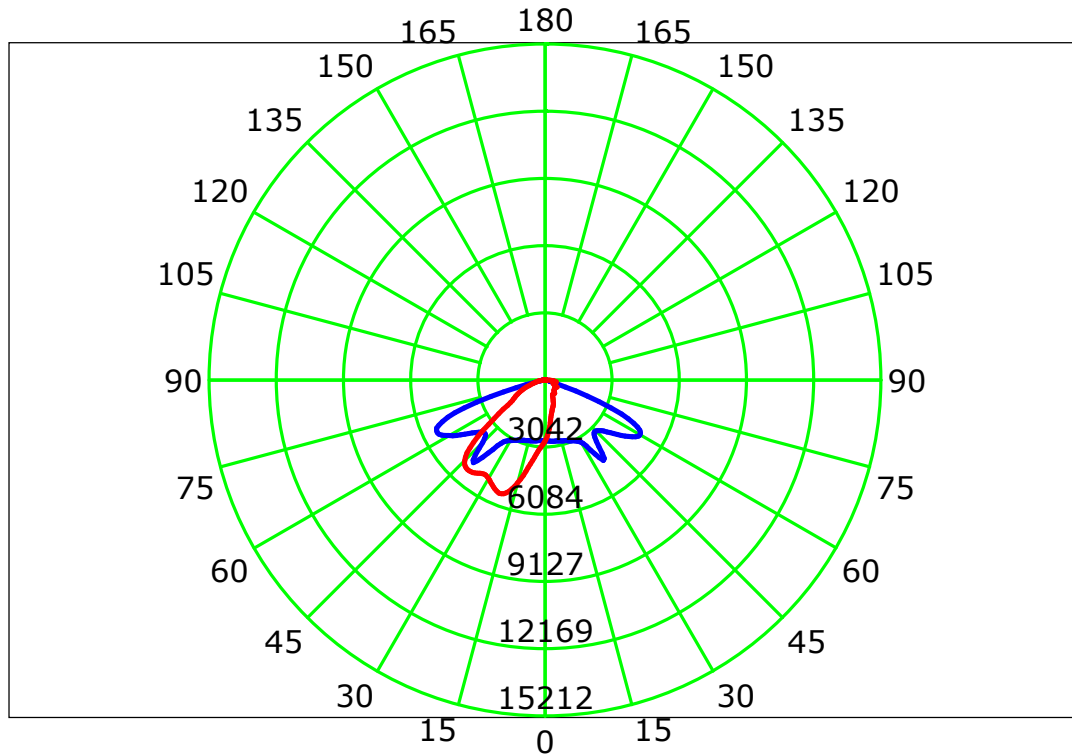
Temperature:

Humidity:

Operator:

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

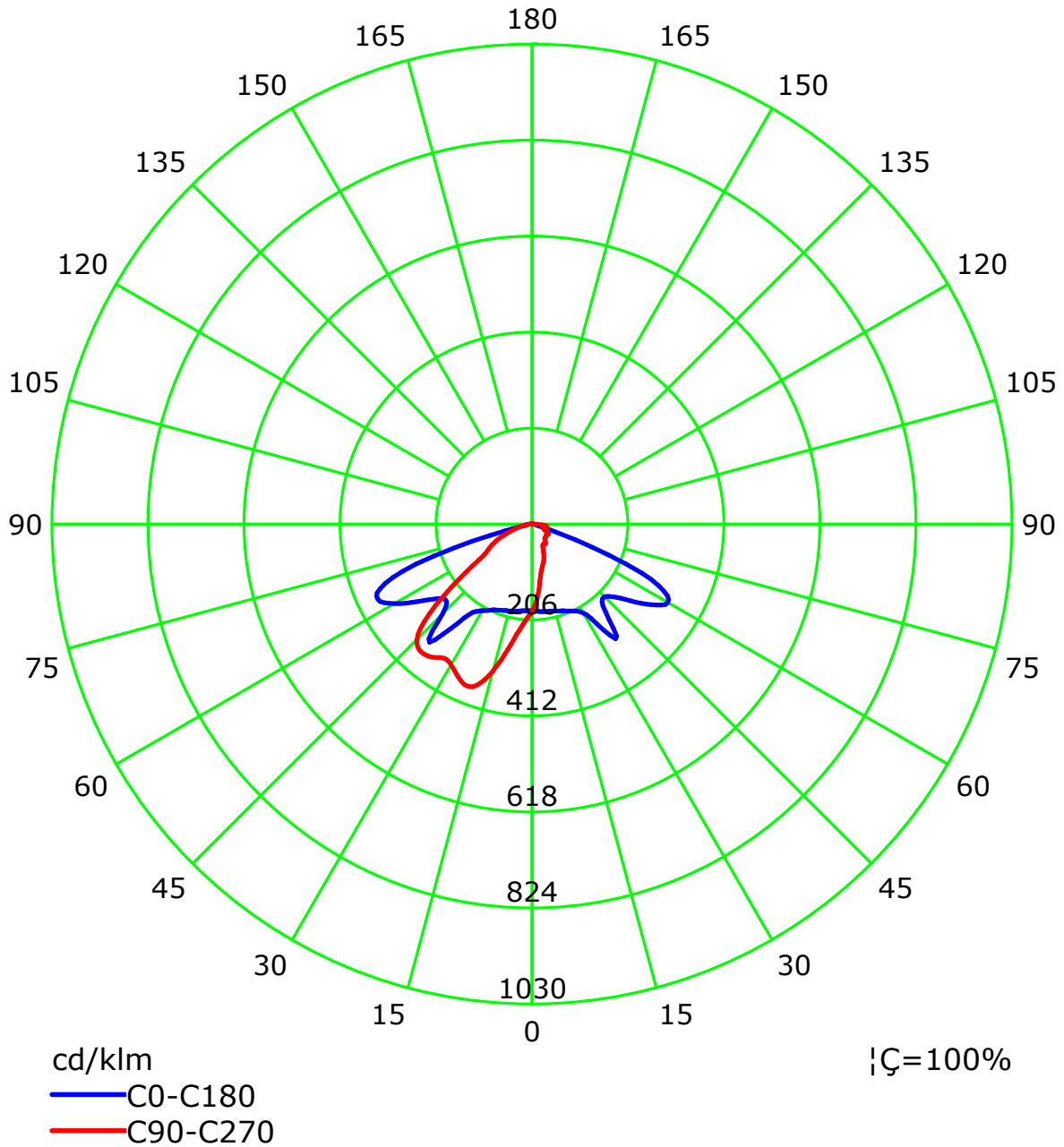
Test Device: LSG-1800B

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

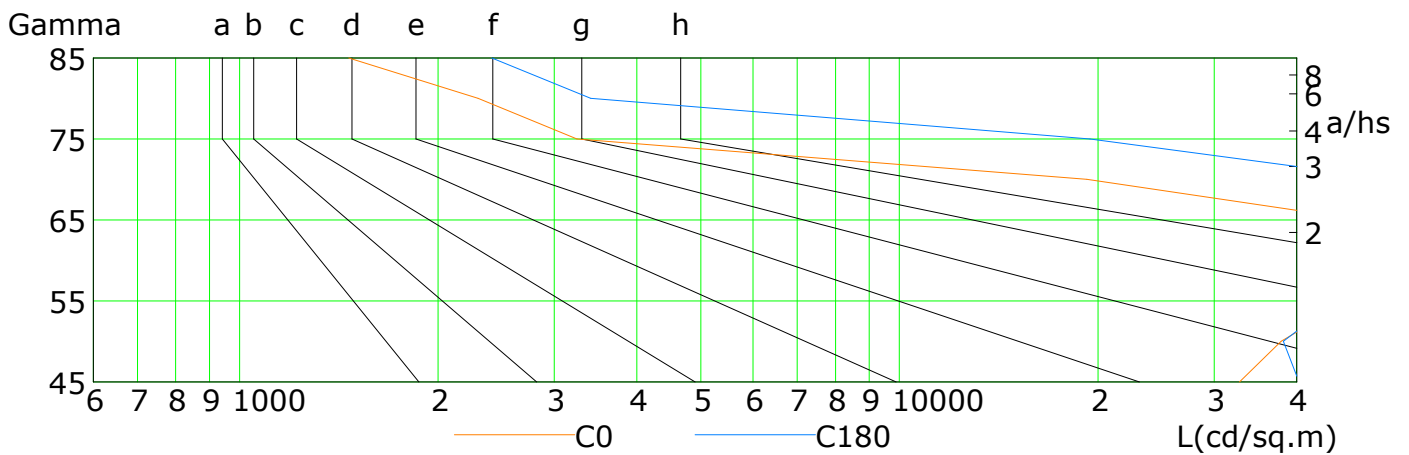
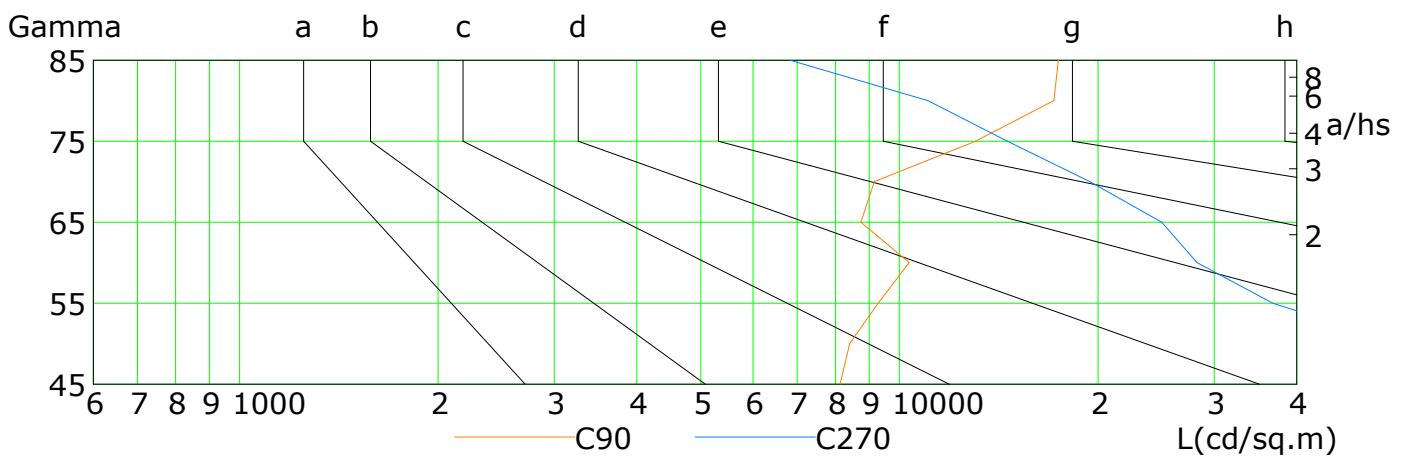
Humidity:

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	32778	37885	47846	56396	50319	19228	3245	2298	1464
C90	8130	8409	9283	10347	8741	9163	13039	17151	17412
C180	40347	38187	45786	57228	65582	56605	19450	3407	2410
C270	69762	57911	36805	28244	24988	19427	14582	11035	6828

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

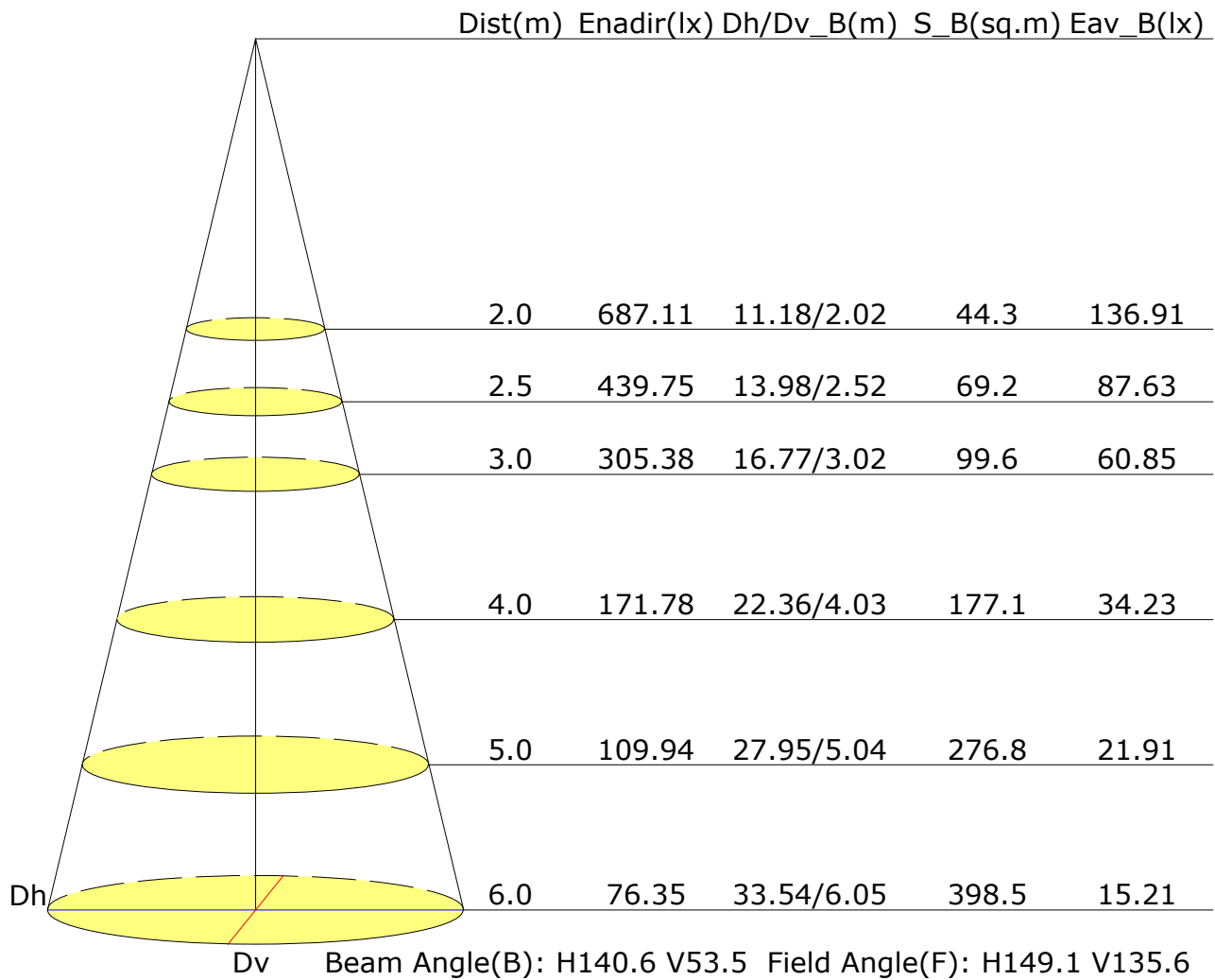
Test Device: LSG-1800B

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	30.4	31.9	30.7	32.2	32.4	23.8	25.3	24.1	25.5	25.8
3H	31.4	32.8	31.8	33.1	33.4	24.2	25.5	24.5	25.8	26.1
4H	31.3	32.6	31.7	32.9	33.3	24.4	25.6	24.7	25.9	26.3
6H	31.3	32.4	31.6	32.8	33.1	24.6	25.7	24.9	26.1	26.4
8H	31.2	32.4	31.6	32.7	33.1	24.7	25.8	25.1	26.2	26.5
12H	31.2	32.3	31.6	32.6	33.0	24.8	25.9	25.2	26.2	26.6
X=4H Y=2H	30.4	31.7	30.8	32.0	32.3	25.1	26.4	25.5	26.7	27.0
3H	31.6	32.6	32.0	33.0	33.4	25.5	26.6	25.9	26.9	27.3
4H	31.5	32.5	31.9	32.9	33.3	25.6	26.6	26.0	27.0	27.4
6H	31.4	32.3	31.9	32.7	33.1	25.8	26.7	26.3	27.1	27.5
8H	31.4	32.2	31.9	32.6	33.1	26.0	26.8	26.4	27.2	27.6
12H	31.4	32.1	31.9	32.5	33.0	26.1	26.8	26.6	27.2	27.7
X=8H Y=4H	31.4	32.2	31.9	32.6	33.1	25.9	26.7	26.3	27.1	27.5
6H	31.4	32.0	31.9	32.5	33.0	26.1	26.8	26.6	27.2	27.7
8H	31.4	31.9	31.9	32.4	32.9	26.3	26.9	26.8	27.3	27.8
12H	31.3	31.8	31.9	32.3	32.8	26.5	27.0	27.0	27.4	28.0
X=12H Y=4H	31.4	32.1	31.9	32.5	33.0	25.8	26.6	26.3	27.0	27.5
6H	31.4	31.9	31.9	32.4	32.9	26.1	26.7	26.6	27.2	27.7
8H	31.3	31.8	31.9	32.3	32.8	26.3	26.8	26.8	27.3	27.8
Variations with the observer position at spacings:										
S=1.0H	+0.8/-0.9					+1.0/-1.7				
S=1.5H	+2.9/-3.4					+2.0/-3.3				
S=2.0H	+3.5/-5.3					+3.3/-4.2				

Calculate in accordance with CIE Pub.117. The table is revised with 14756lm ($8\log(F/F_0) = 9.4$).

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	0.47	0.58	0.67	0.73	0.82	0.88	0.93	0.98	1.01
	0.30		0.38	0.49	0.58	0.65	0.75	0.82	0.87	0.93	0.97
	0.20		0.31	0.42	0.51	0.59	0.69	0.77	0.82	0.89	0.94
0.50	0.50	0.20	0.45	0.56	0.64	0.70	0.79	0.85	0.89	0.94	0.97
	0.30		0.37	0.48	0.57	0.63	0.73	0.79	0.84	0.90	0.94
	0.20		0.31	0.42	0.51	0.58	0.68	0.75	0.80	0.86	0.91
0.30	0.50	0.20	0.44	0.54	0.62	0.68	0.76	0.81	0.85	0.90	0.93
	0.30		0.36	0.47	0.55	0.62	0.71	0.77	0.81	0.87	0.90
	0.20		0.31	0.41	0.50	0.57	0.66	0.73	0.78	0.84	0.88
0.00	0.00	0.00	0.28	0.39	0.47	0.54	0.63	0.69	0.74	0.80	0.83
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	1.15	0.96	0.82	0.71	0.56	0.46	0.39	0.30	0.25	
	0.30		0.96	0.82	0.71	0.63	0.51	0.42	0.36	0.28	0.23	
	0.20		0.82	0.72	0.63	0.56	0.46	0.39	0.34	0.27	0.22	
0.50	0.50	0.20	1.11	0.92	0.79	0.68	0.54	0.47	0.38	0.29	0.24	
	0.30		0.94	0.80	0.69	0.61	0.49	0.41	0.35	0.27	0.23	
	0.20		0.81	0.71	0.62	0.55	0.45	0.38	0.33	0.26	0.22	
0.30	0.50	0.20	1.08	0.89	0.76	0.66	0.52	0.42	0.36	0.28	0.23	
	0.30		0.92	0.79	0.68	0.59	0.48	0.40	0.34	0.26	0.22	
	0.20		0.81	0.70	0.61	0.54	0.44	0.37	0.32	0.25	0.21	
0.00	0.00	0.00	0.72	0.61	0.53	0.46	0.37	0.31	0.26	0.20	0.17	
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	0.18	0.19	0.20	0.20	0.21	0.21	0.21	0.22	0.22
	0.30		0.10	0.11	0.13	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.04	0.06	0.07	0.08	0.10	0.12	0.13	0.15	0.16
0.50	0.50	0.20	0.17	0.18	0.19	0.19	0.20	0.20	0.21	0.21	0.21
	0.30		0.10	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.18
	0.20		0.04	0.06	0.07	0.08	0.10	0.12	0.13	0.15	0.16
0.30	0.50	0.20	0.16	0.18	0.18	0.19	0.19	0.19	0.20	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	0.05	0.07	0.08	0.10	0.12	0.13	0.14	0.15
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: