Report No.: 1

Test Time: 20.09.2019 10:12

Luminaire Property

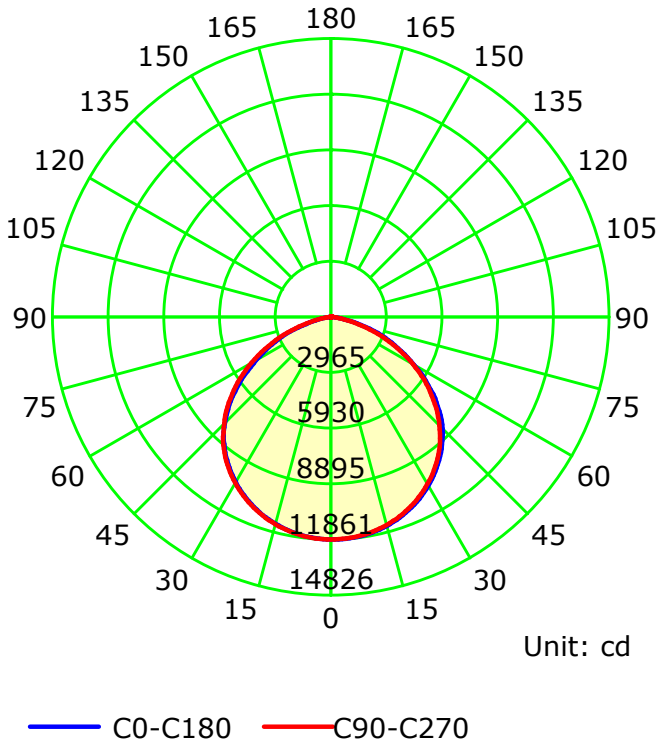
Luminaire Manufacturer:
Luminaire Description: FD 112 200W 120gr
Luminous Length (mm): 360
Luminous Width (mm): 360
Luminous Height (mm): 50
Voltage: 221.2 V
Current: 0.937 A
Power: 202.30 W
Power Factor: 0.975

Photometric Results

CIE Class: Direct
Total Rated Lamp Lumens: 32673.3 lm
Measurement Flux: 32673.3 lm
Efficiency: 100%
Downward Ratio: 100%
Upward Ratio: 0%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 152.4, 152.4, 152.0, 152.1
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 111.4, 111.9, 112.9, 112.7
Luminaire Efficacy Rating (LER): 161.56
Central Intensity: 11858.76 cd
Max. Intensity: 11861.13 cd
Pos of Max. Intensity: H0 V1
S/MH(C0/C180): 1.29
S/MH(C90/C270): 1.28

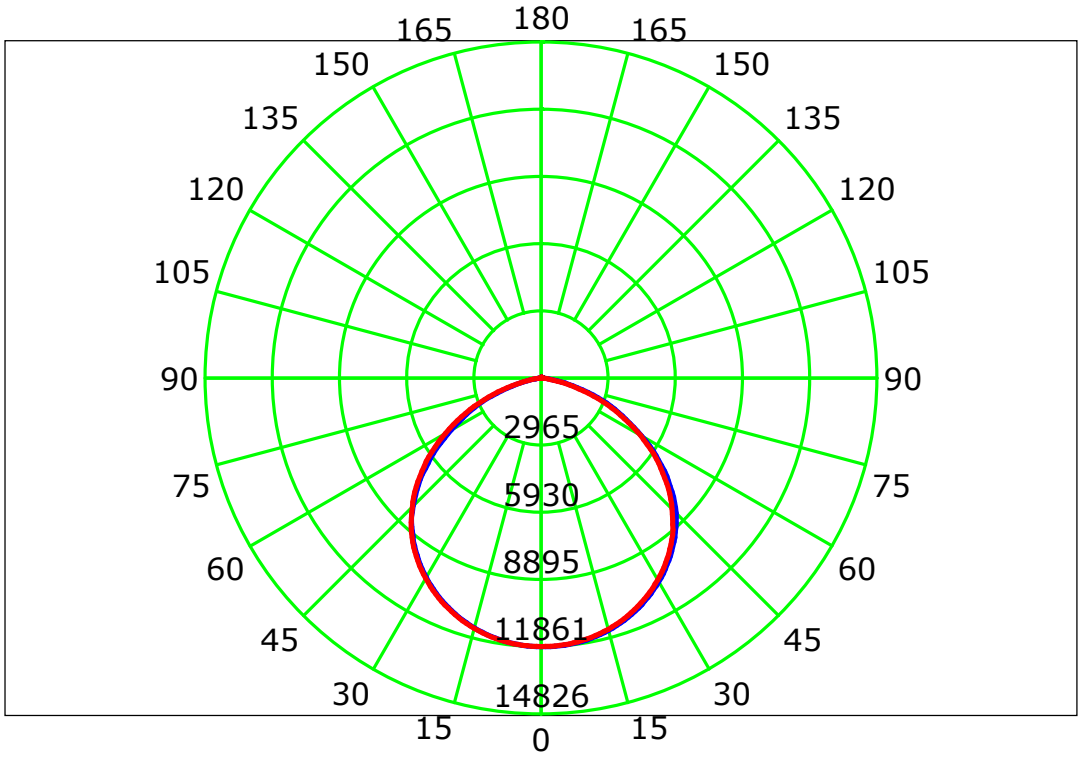
Picture Of Luminaire

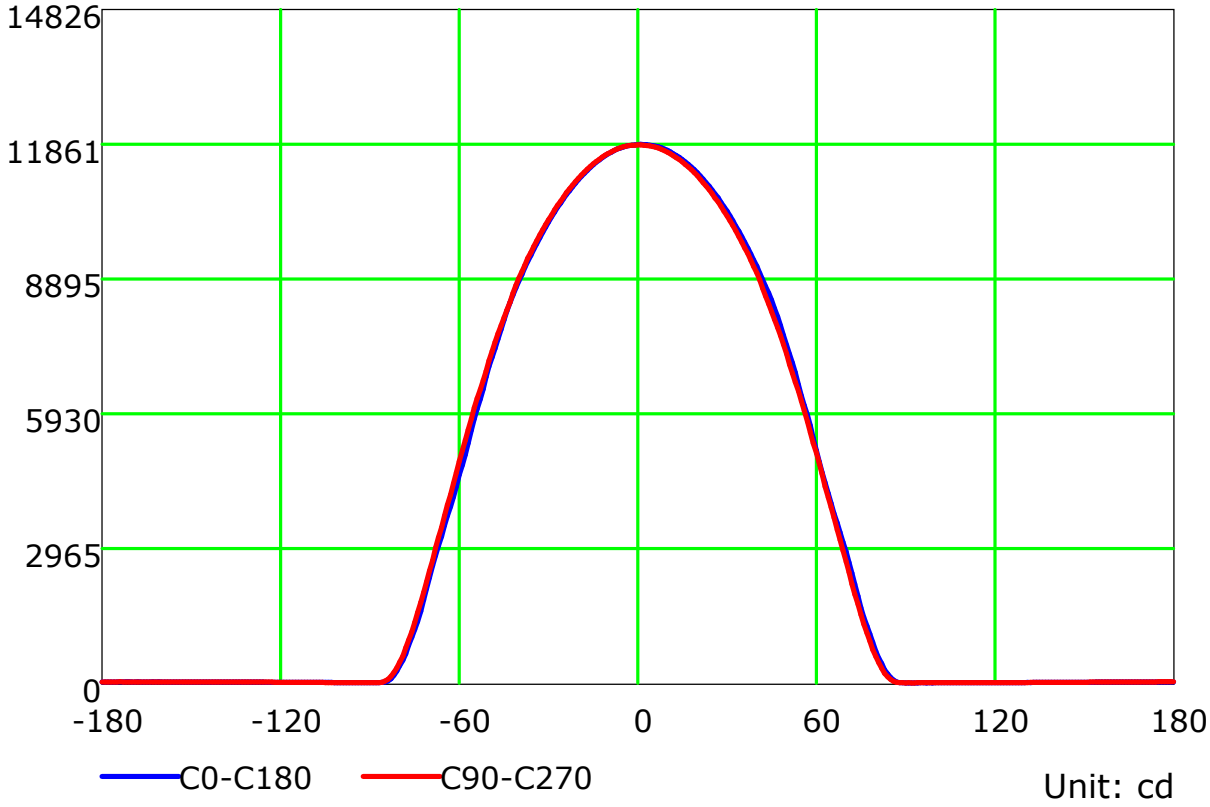
Luminous Intensity Distribution Curve



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

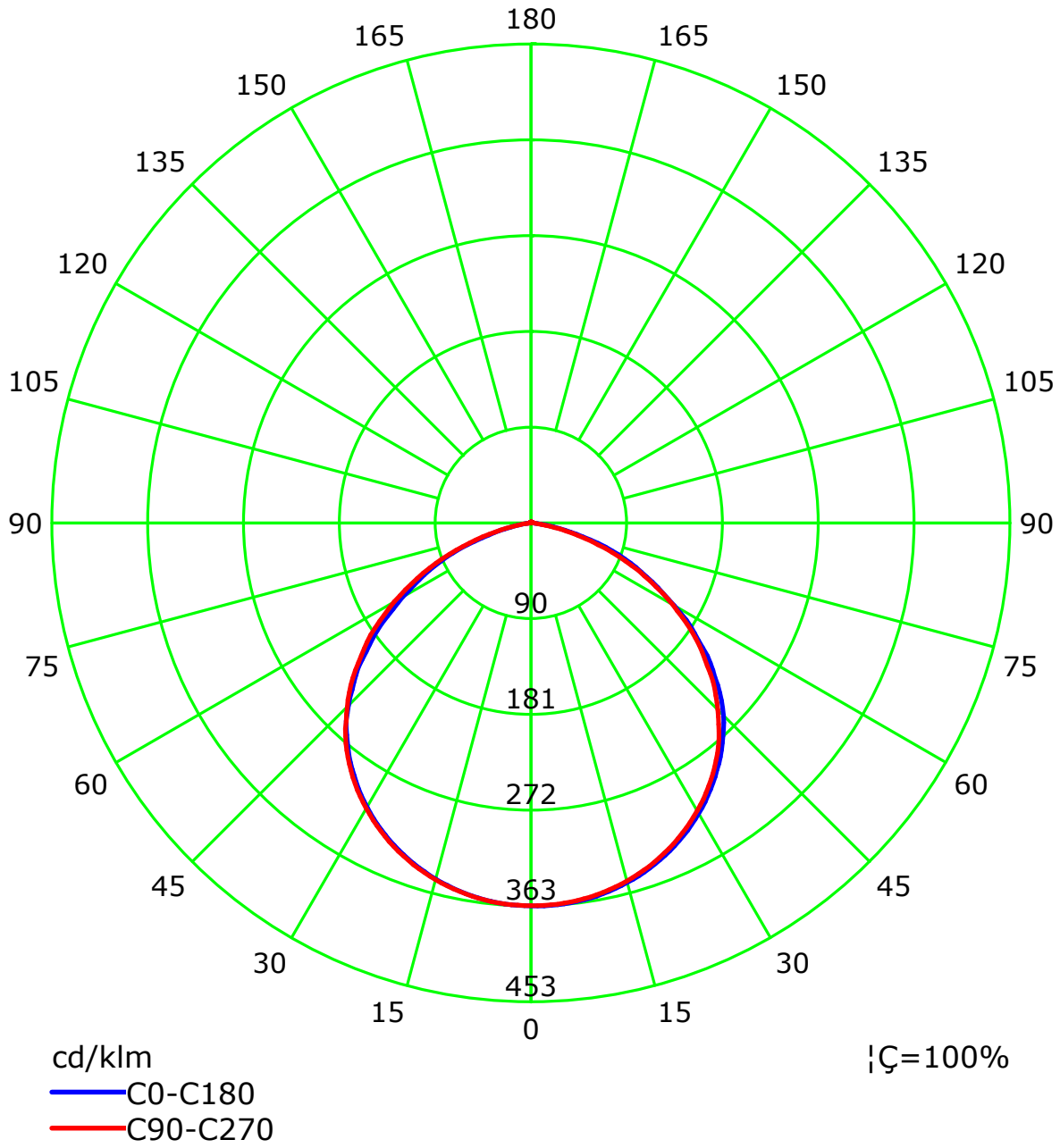




C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-180.0:1.0
Test Device: LSG-1800B
Distance: 12.677 m
Humidity:
Inspector:

Luminous Intensity Distribution Curve(cd/klm)

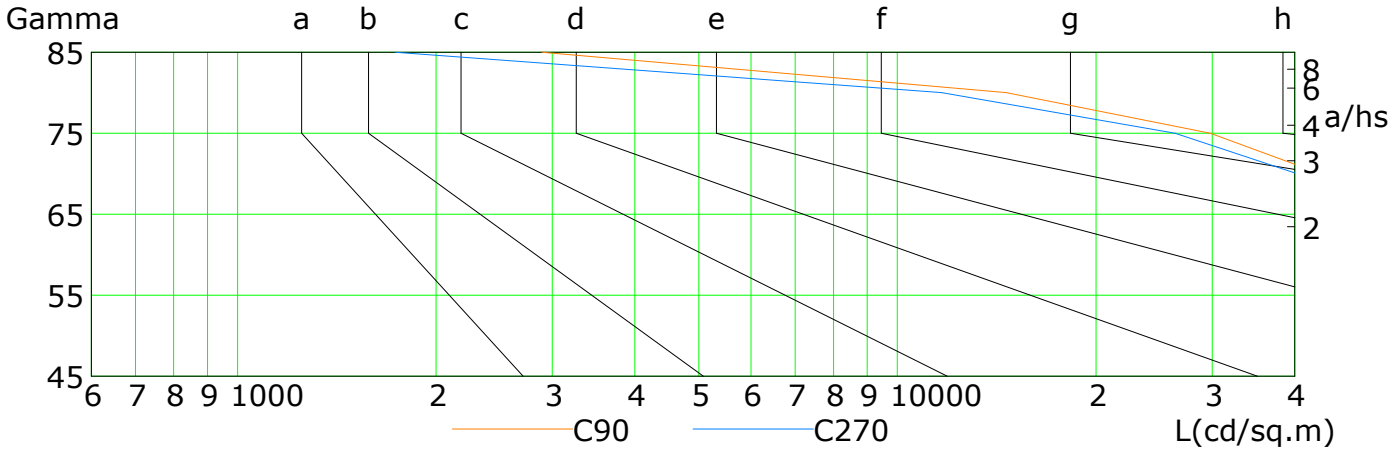


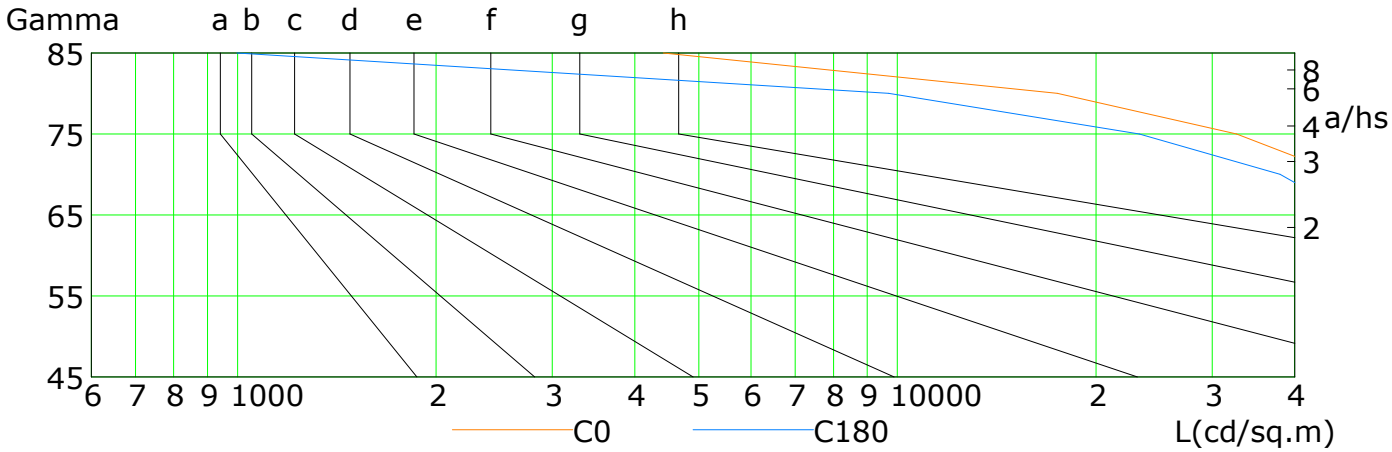
C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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



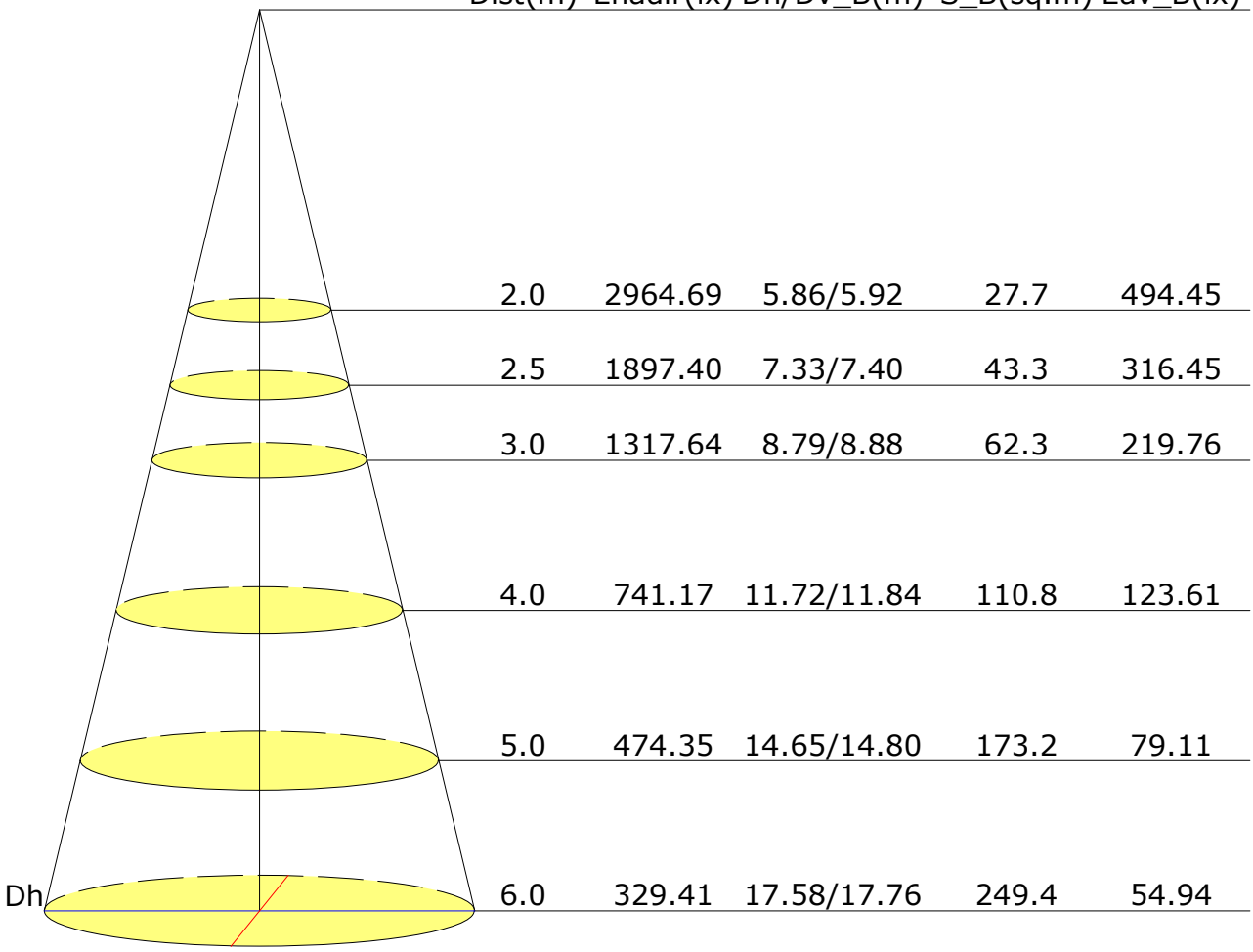


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	80805	76622	71079	63701	55691	47325	32661	17482	4418
C90	78367	74691	69779	63125	54534	43720	29813	14610	2895
C180	76599	71886	65351	57100	48858	38021	23267	9701	998
C270	77085	73155	68081	60778	51831	40404	26346	11665	1735

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	27.4	28.7	27.7	29.0	29.2	27.3	28.6	27.6	28.9	29.1
3H	28.5	29.7	28.8	30.0	30.3	28.3	29.6	28.7	29.8	30.1
4H	28.8	30.0	29.2	30.3	30.6	28.6	29.7	28.9	30.0	30.3
6H	28.9	30.0	29.3	30.3	30.6	28.6	29.7	29.0	30.0	30.3
8H	28.9	29.9	29.3	30.2	30.6	28.6	29.6	29.0	30.0	30.3
12H	28.9	29.8	29.3	30.2	30.5	28.6	29.6	29.0	29.9	30.2
X=4H Y=2H	27.9	29.0	28.2	29.3	29.6	27.8	29.0	28.2	29.3	29.6
3H	29.1	30.1	29.5	30.4	30.8	29.0	30.0	29.4	30.3	30.7
4H	29.5	30.4	29.9	30.7	31.1	29.3	30.2	29.7	30.5	30.9
6H	29.6	30.4	30.1	30.8	31.2	29.4	30.2	29.8	30.5	31.0
8H	29.6	30.3	30.1	30.8	31.2	29.4	30.1	29.8	30.5	30.9
12H	29.6	30.3	30.1	30.7	31.1	29.3	30.0	29.8	30.4	30.9
X=8H Y=4H	29.6	30.3	30.0	30.7	31.1	29.4	30.1	29.8	30.5	30.9
6H	29.8	30.3	30.2	30.8	31.2	29.5	30.1	30.0	30.5	31.0
8H	29.8	30.3	30.3	30.7	31.2	29.5	30.0	30.0	30.5	31.0
12H	29.8	30.2	30.3	30.7	31.2	29.5	29.9	30.0	30.4	30.9
X=12H Y=4H	29.6	30.2	30.0	30.6	31.1	29.4	30.0	29.8	30.4	30.9
6H	29.7	30.2	30.2	30.7	31.2	29.5	30.0	30.0	30.4	30.9
8H	29.8	30.2	30.3	30.7	31.2	29.5	29.9	30.0	30.4	30.9
Variations with the observer position at spacings:										
S=1.0H	+0.2/-0.2					+0.2/-0.2				
S=1.5H	+0.4/-0.7					+0.5/-0.8				
S=2.0H	+0.9/-1.3					+0.9/-1.5				

Calculate in accordance with CIE Pub.117. The table is revised with 32673lm (8log(F/F0) = 12.1).

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		0.45	0.57	0.65	0.71	0.80	0.86	0.91	0.97	1.00
	0.20		0.40	0.51	0.59	0.66	0.75	0.82	0.87	0.93	0.97
0.50	0.50	0.20	0.52	0.63	0.70	0.76	0.84	0.89	0.92	0.97	0.99
	0.30		0.45	0.55	0.63	0.70	0.78	0.84	0.88	0.93	0.97
	0.20		0.39	0.50	0.58	0.65	0.74	0.80	0.84	0.90	0.94
0.30	0.50	0.20	0.51	0.61	0.68	0.73	0.81	0.85	0.89	0.93	0.96
	0.30		0.44	0.54	0.62	0.68	0.76	0.82	0.85	0.90	0.93
	0.20		0.39	0.49	0.57	0.64	0.72	0.78	0.82	0.88	0.91
0.00	0.00	0.00	0.37	0.47	0.55	0.61	0.69	0.74	0.78	0.83	0.86

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	1.04	0.86	0.73	0.63	0.49	0.40	0.34	0.26	0.21
	0.30		0.87	0.73	0.63	0.55	0.45	0.37	0.32	0.25	0.20
	0.20		0.75	0.64	0.56	0.50	0.41	0.34	0.30	0.23	0.19
0.50	0.50	0.20	1.01	0.83	0.70	0.60	0.47	0.42	0.33	0.25	0.20
	0.30		0.85	0.72	0.62	0.54	0.43	0.36	0.31	0.24	0.19
	0.20		0.74	0.63	0.55	0.49	0.40	0.33	0.29	0.22	0.19
0.30	0.50	0.20	0.98	0.80	0.67	0.58	0.45	0.37	0.31	0.24	0.19
	0.30		0.83	0.70	0.60	0.52	0.42	0.34	0.29	0.23	0.18
	0.20		0.73	0.63	0.54	0.48	0.39	0.32	0.28	0.22	0.18
0.00	0.00	0.00	0.63	0.53	0.45	0.39	0.31	0.26	0.22	0.17	0.14

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

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	0.19	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		0.04	0.06	0.07	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	0.19	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: