Report No.: 1

Test Time: 19.08.2019 15:09

Luminaire Property

Luminaire Manufacturer:
Luminaire Description: FP 150 50W 5000K HE
Luminous Length (mm): 250
Luminous Height (mm): 80
Current: 0.212 A
Power Factor: 0.981

Lamp Description: LED
Luminous Width (mm): 153
Voltage: 221.5 V
Power: 46.22 W

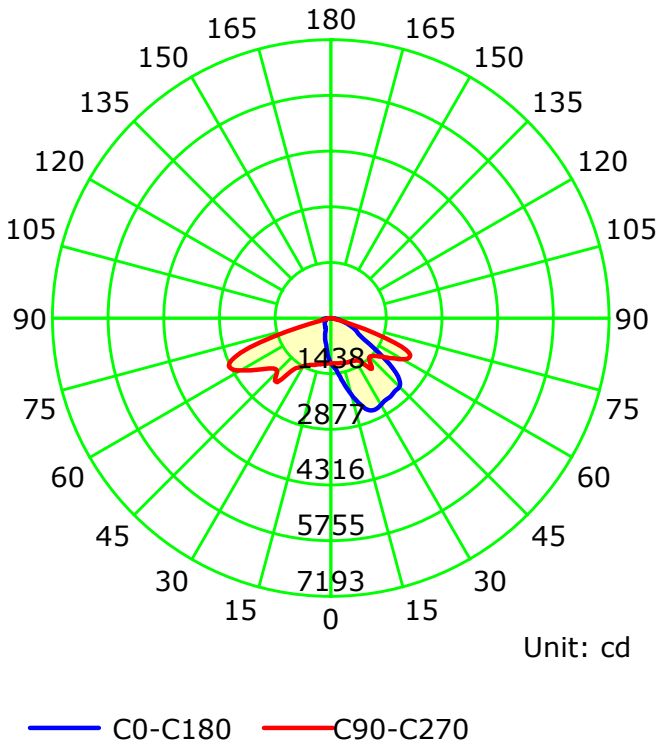
Photometric Results

CIE Class: Direct
Measurement Flux: 6879.6 lm
Downward Ratio: 99%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 113.2, 151.0, 134.1, 134.6
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 60.5, 142.5, 74.6, 71.8
Luminaire Efficacy Rating (LER): 148.89
Max. Intensity: 5755.01 cd
S/MH(C0/C180): 1.76

Total Rated Lamp Lumens: 6879.6 lm
Efficiency: 100%
Upward Ratio: 1%
Central Intensity: 1165.74 cd
Pos of Max. Intensity: H67.5 V64
S/MH(C90/C270): 2.03

Picture Of Luminaire

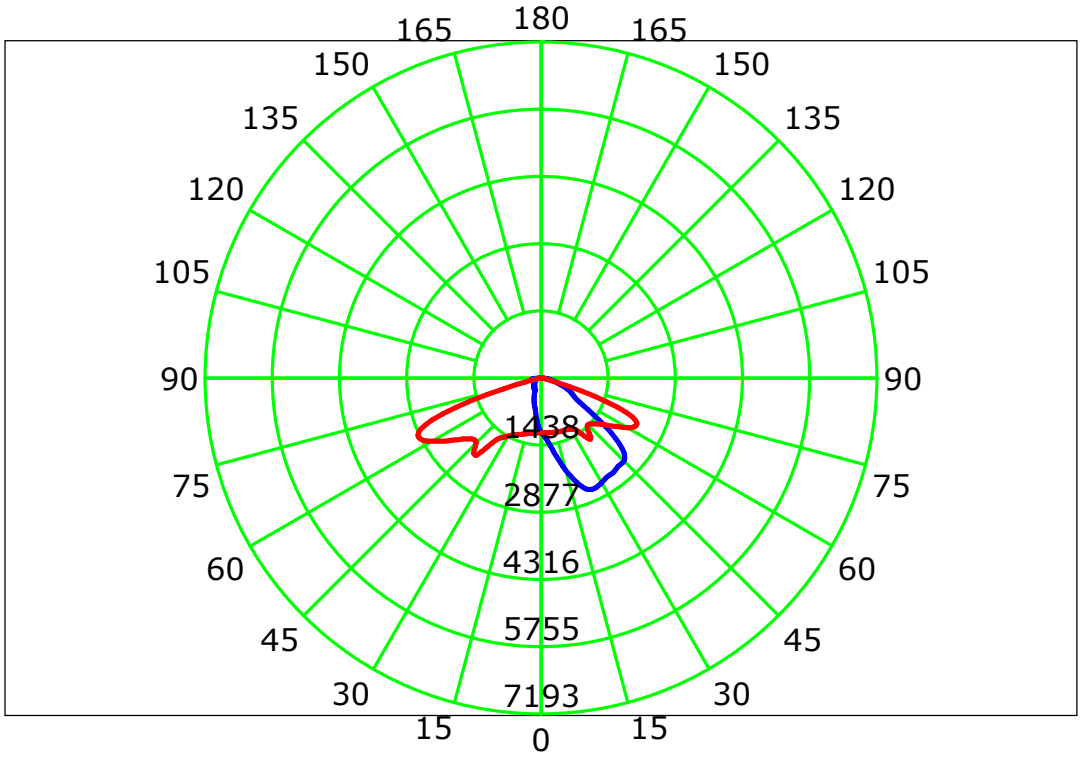
Luminous Intensity Distribution Curve

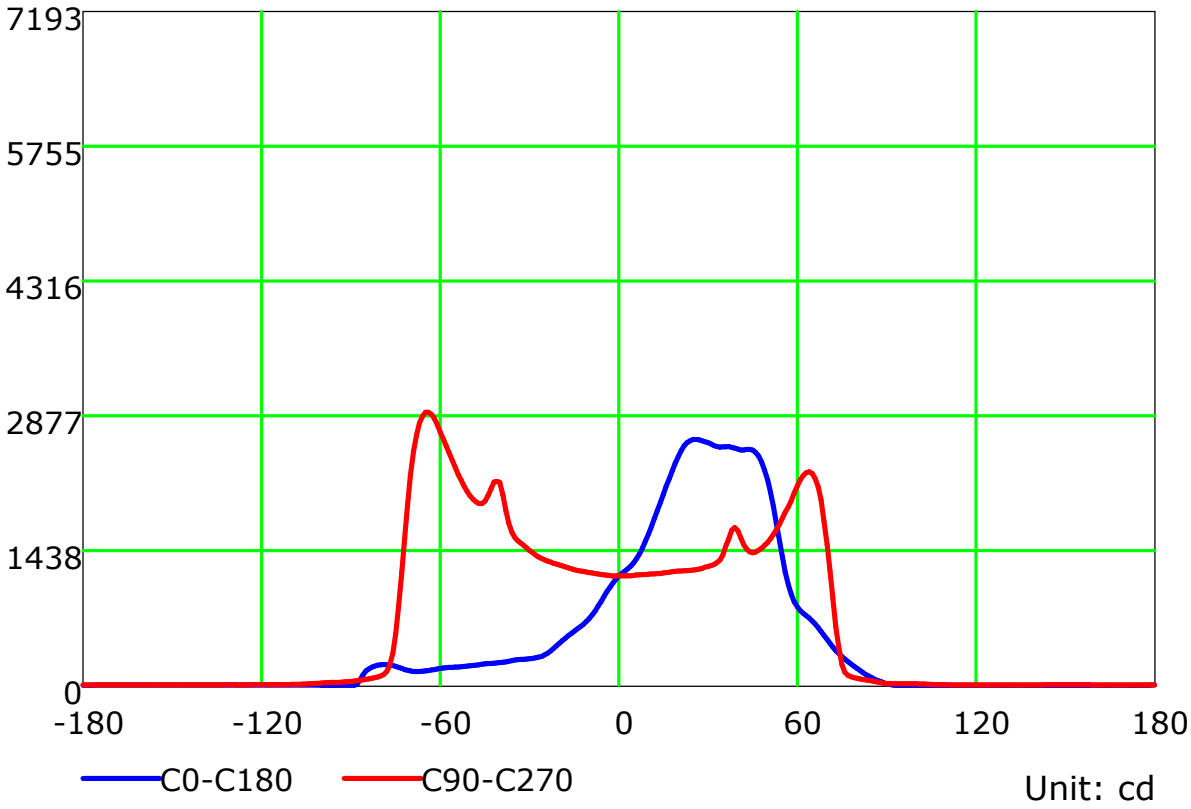


C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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

Luminous Intensity Distribution Curve

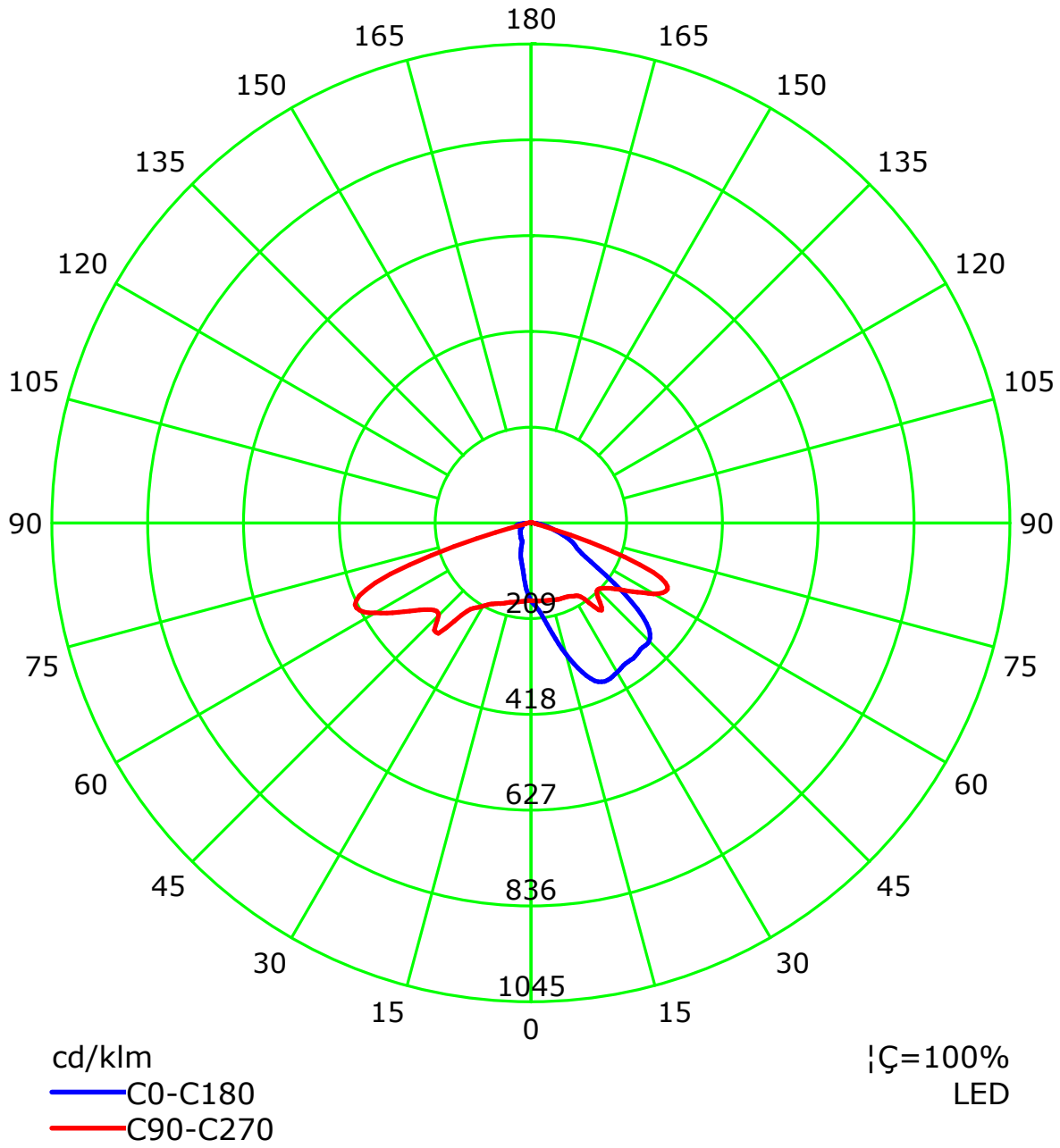




C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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

Luminous Intensity Distribution Curve(cd/klm)

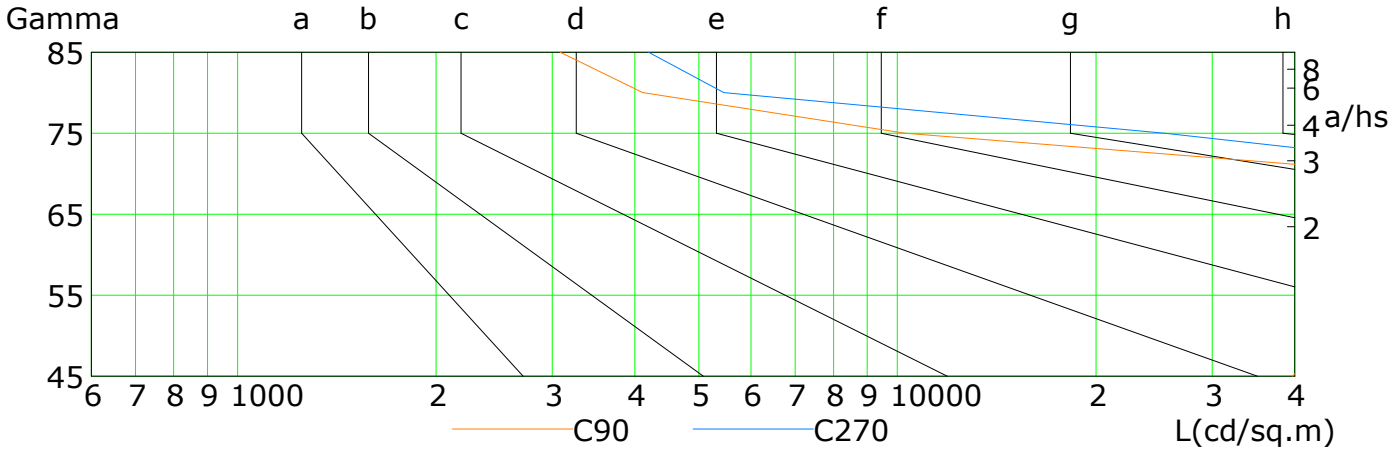


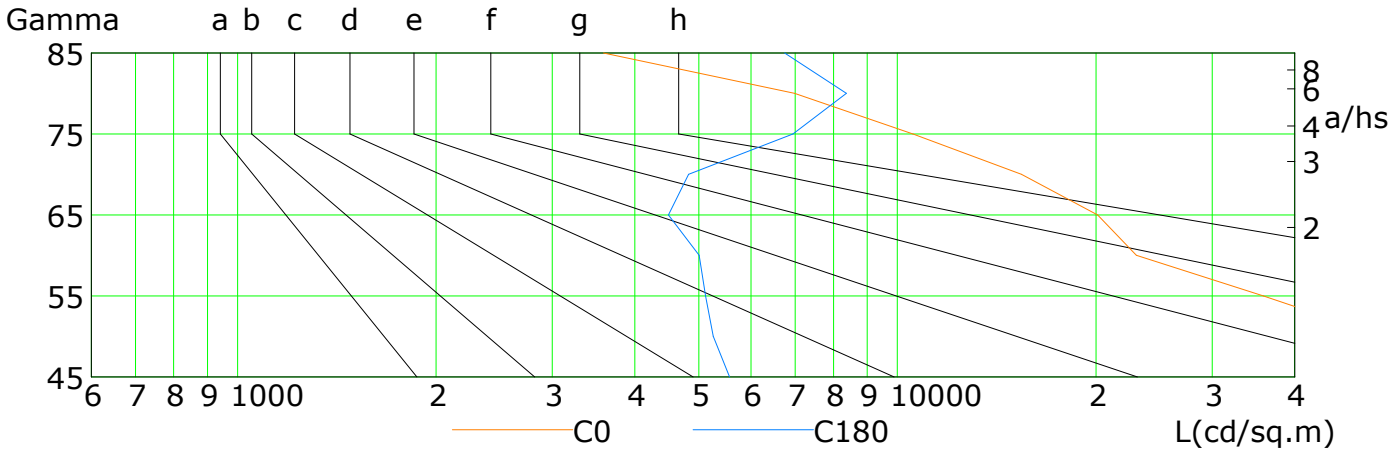
C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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	61038	55034	35882	23026	20119	15420	10563	6982	3586
C90	39713	44965	55865	71681	83042	61125	10276	4114	3084
C180	5568	5256	5118	5007	4496	4826	6949	8373	6747
C270	55117	59655	72849	91009	106953	91423	25430	5454	4199

C Plane (°):0.0-360.0: 22.5
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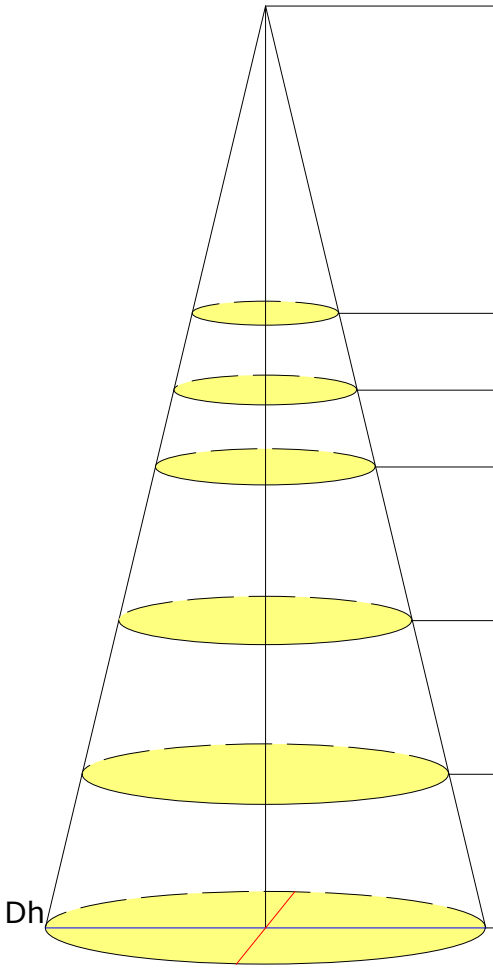
Distance: 12.677 m
Humidity:
Inspector:

Illuminance at a Distance



Dist(m)	Enadir(lx)	Dh/Dv_B(m)	S_B(sq.m)	Eav_B(lx)
2.0	291.43	2.33/11.77	46.7	61.27
2.5	186.52	2.92/14.72	72.9	39.21
3.0	129.53	3.50/17.66	105.0	27.23
4.0	72.86	4.67/23.55	186.7	15.32
5.0	46.63	5.83/29.44	291.7	9.80
6.0	32.38	7.00/35.32	420.1	6.81

Beam Angle(B): H60.5 V142.5 Field Angle(F): H113.2 V151.0

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	26.5	28.1	26.9	28.3	28.6	33.0	34.5	33.3	34.8	35.0
3H	26.9	28.3	27.2	28.6	28.9	35.4	36.7	35.7	37.0	37.3
4H	27.0	28.3	27.4	28.6	28.9	35.5	36.8	35.8	37.1	37.4
6H	27.0	28.2	27.4	28.6	28.9	35.4	36.6	35.8	36.9	37.3
8H	27.0	28.2	27.4	28.5	28.9	35.4	36.5	35.7	36.9	37.2
12H	27.0	28.1	27.4	28.5	28.8	35.3	36.4	35.7	36.8	37.2
X=4H Y=2H	28.1	29.4	28.5	29.7	30.0	33.1	34.4	33.5	34.7	35.1
3H	28.4	29.5	28.8	29.9	30.2	35.8	36.9	36.2	37.3	37.6
4H	28.5	29.5	28.9	29.9	30.2	36.0	37.0	36.4	37.4	37.8
6H	28.5	29.4	29.0	29.8	30.2	35.9	36.8	36.4	37.2	37.7
8H	28.5	29.3	29.0	29.8	30.2	35.9	36.7	36.4	37.2	37.6
12H	28.5	29.2	29.0	29.7	30.1	35.9	36.6	36.4	37.1	37.5
X=8H Y=4H	29.2	30.0	29.6	30.4	30.8	35.9	36.7	36.4	37.2	37.6
6H	29.2	29.9	29.7	30.3	30.8	35.9	36.6	36.4	37.0	37.5
8H	29.3	29.8	29.8	30.3	30.8	35.9	36.5	36.4	36.9	37.4
12H	29.3	29.8	29.8	30.2	30.8	35.9	36.4	36.4	36.8	37.4
X=12H Y=4H	29.1	29.9	29.6	30.3	30.8	35.9	36.6	36.4	37.1	37.5
6H	29.3	29.8	29.8	30.3	30.8	35.9	36.5	36.4	36.9	37.4
8H	29.3	29.8	29.8	30.3	30.8	35.9	36.4	36.4	36.8	37.4
Variations with the observer position at spacings:										
S=1.0H	+0.6/-0.9					+0.2/-0.3				
S=1.5H	+1.9/-3.6					+1.7/-2.1				
S=2.0H	+2.9/-4.5					+2.4/-3.0				

Calculate in accordance with CIE Pub.117. The table is revised with 6880lm (8log(F/F0) = 6.7).

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	0.46	0.57	0.65	0.72	0.81	0.87	0.92	0.97	1.01
	0.30		0.36	0.47	0.56	0.64	0.74	0.81	0.86	0.92	0.97
	0.20		0.30	0.41	0.50	0.57	0.68	0.75	0.81	0.88	0.93
0.50	0.50	0.20	0.44	0.54	0.63	0.69	0.78	0.84	0.88	0.93	0.97
	0.30		0.35	0.46	0.55	0.62	0.72	0.78	0.83	0.89	0.93
	0.20		0.29	0.40	0.49	0.56	0.66	0.73	0.79	0.86	0.90
0.30	0.50	0.20	0.42	0.52	0.60	0.66	0.75	0.80	0.84	0.89	0.93
	0.30		0.35	0.45	0.54	0.60	0.70	0.76	0.80	0.86	0.90
	0.20		0.29	0.40	0.48	0.55	0.65	0.72	0.77	0.83	0.87
0.00	0.00	0.00	0.27	0.37	0.45	0.52	0.61	0.68	0.73	0.79	0.82

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(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	1.17	0.98	0.84	0.73	0.57	0.47	0.40	0.31	0.25
	0.30		0.97	0.84	0.73	0.64	0.52	0.44	0.37	0.29	0.24
	0.20		0.83	0.73	0.65	0.58	0.47	0.40	0.35	0.28	0.23
0.50	0.50	0.20	1.13	0.95	0.81	0.70	0.55	0.49	0.39	0.30	0.24
	0.30		0.95	0.82	0.71	0.63	0.50	0.42	0.36	0.28	0.23
	0.20		0.83	0.72	0.64	0.57	0.47	0.39	0.34	0.27	0.22
0.30	0.50	0.20	1.10	0.91	0.78	0.67	0.53	0.44	0.37	0.29	0.23
	0.30		0.94	0.80	0.70	0.61	0.49	0.41	0.35	0.27	0.22
	0.20		0.82	0.72	0.63	0.56	0.46	0.38	0.33	0.26	0.22
0.00	0.00	0.00	0.73	0.63	0.55	0.48	0.39	0.32	0.27	0.21	0.18

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	0.22	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	0.05	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	0.05	0.07	0.08	0.10	0.12	0.13	0.15	0.16
0.30	0.50	0.20	0.17	0.18	0.18	0.19	0.19	0.20	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	0.11	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