

Report No.: 1

Test Time: 25.02.2020 17:54

## Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FT 190 60W 3000K 90 rp.

Luminous Length (mm): 578

Luminous Width (mm): 190

Luminous Height (mm): 73

Voltage: 228.9 V

Current: 0.267 A

Power: 60.32 W

Power Factor: 0.984

## Photometric Results

CIE Class: Direct

Total Rated Lamp Lumens: 8760.3 lm

Measurement Flux: 8760.3 lm

Efficiency: 100%

Downward Ratio: 99%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 141.0, 144.9, 144.2, 144.1

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 89.9, 90.8, 93.7, 93.5

Luminaire Efficacy Rating (LER): 145.28

Central Intensity: 3800.23 cd

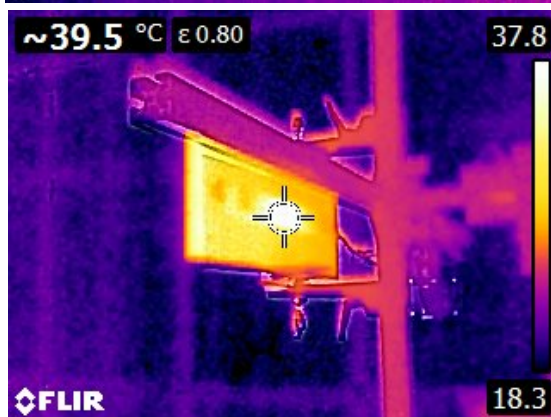
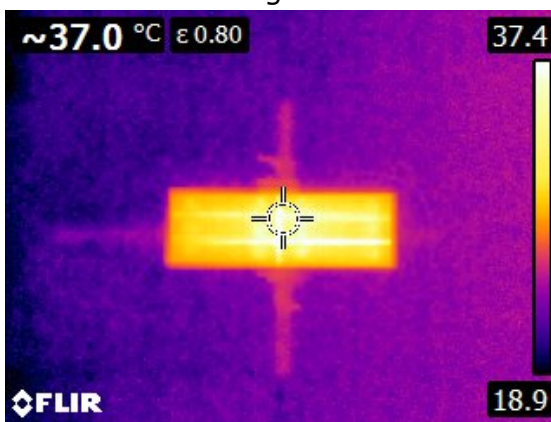
Max. Intensity: 3898.68 cd

Pos of Max. Intensity: H157.5 V22

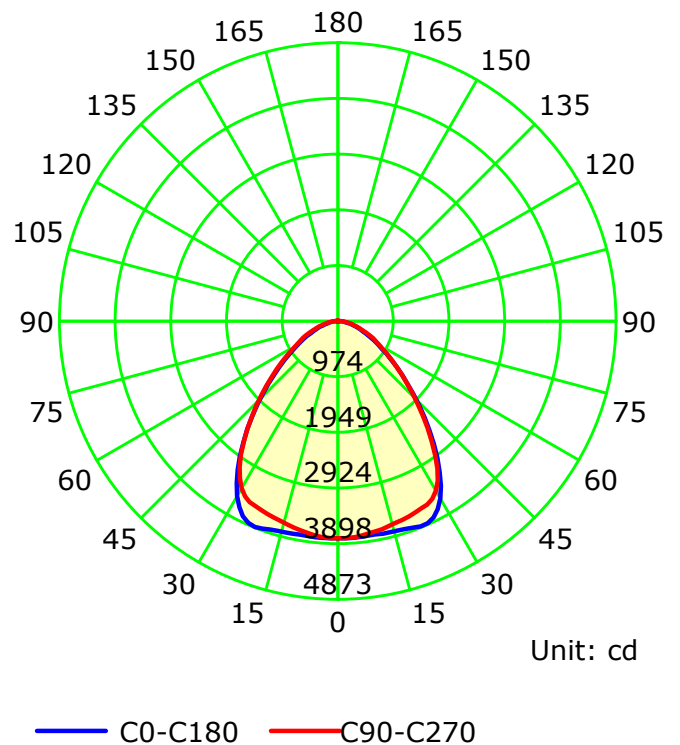
S/MH(C0/C180): 1.31

S/MH(C90/C270): 1.29

Termogramma



Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5

Gamma Plane (°):0.0-180.0:2.0

Test Lab:

Test Device: LSG-1800B

Test Type: TYPE C

Distance: 12.677 m

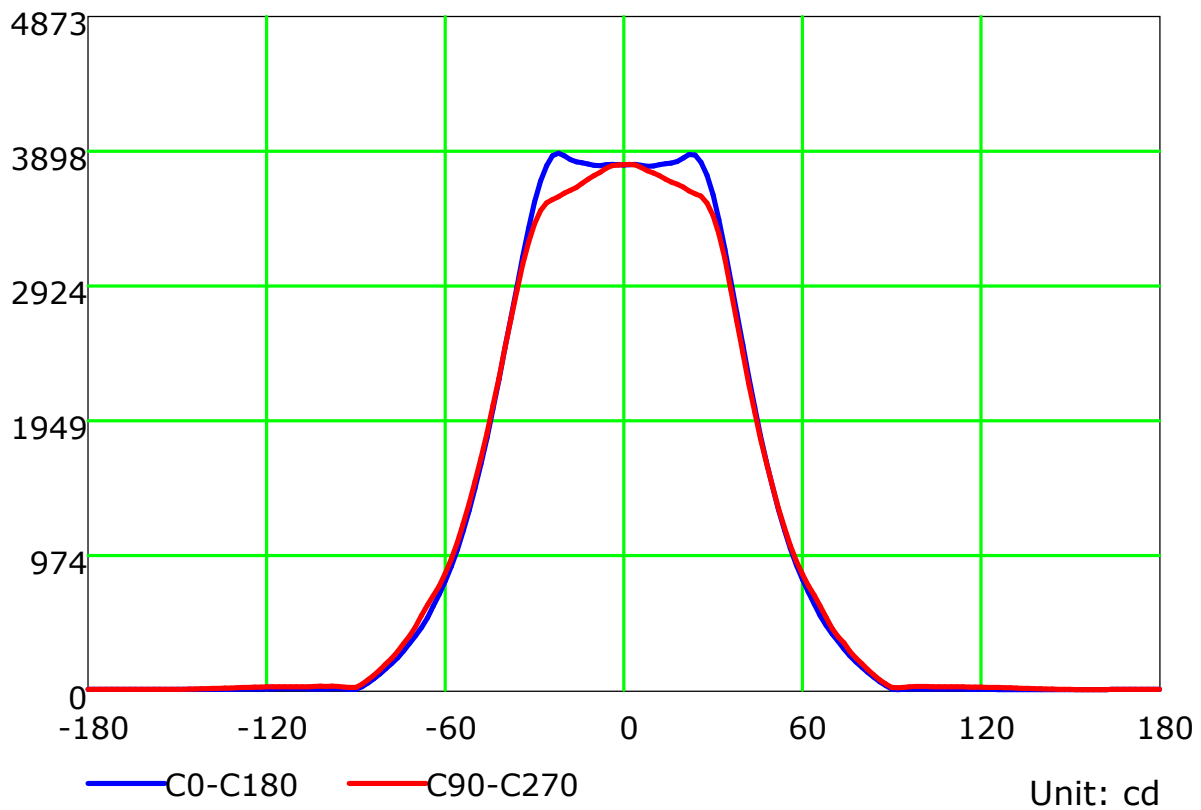
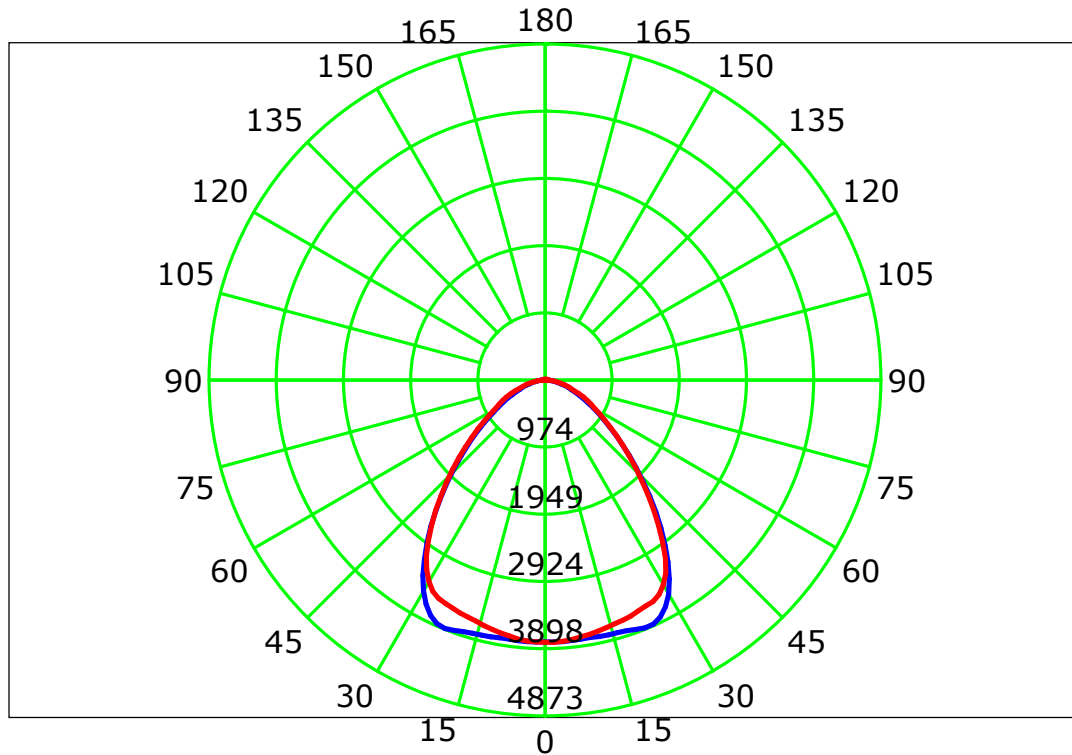
Temperature:

Humidity:

Operator:

Inspector:

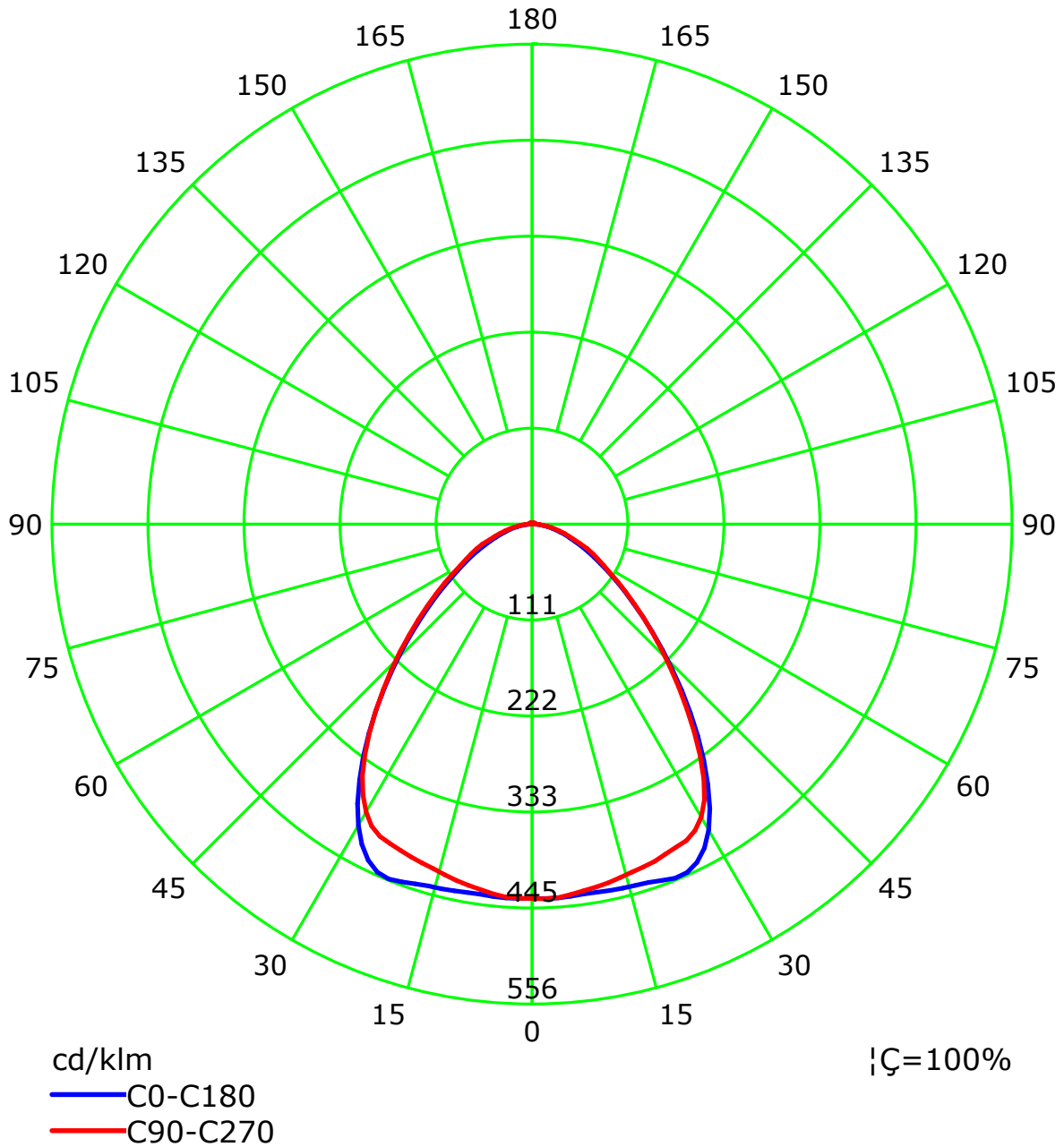
## Luminous Intensity Distribution Curve



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

Gamma Plane (°):0.0-180.0:2.0  
 Test Device: LSG-1800B  
 Distance: 12.677 m  
 Humidity:  
 Inspector:

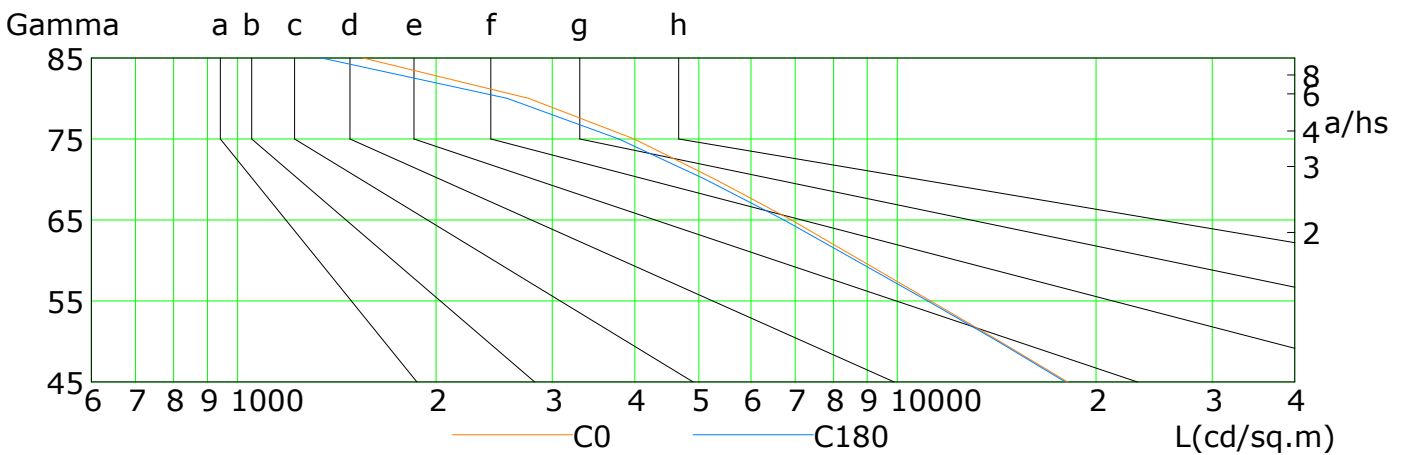
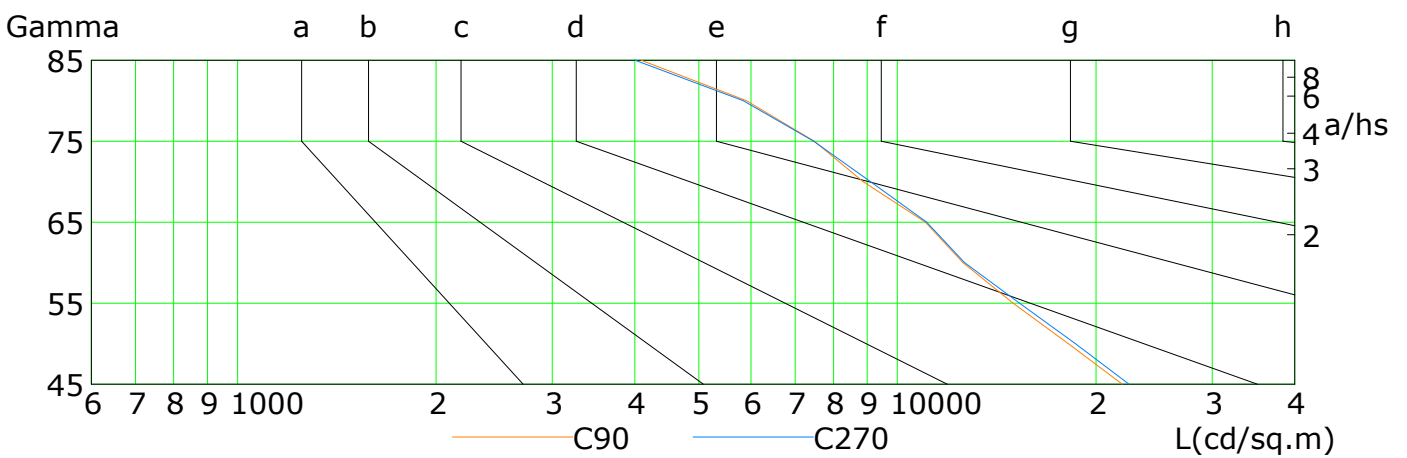
## Luminous Intensity Distribution Curve(cd/klm)



## Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
		2000	1000	500	<=300				
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	18103	14292	11232	8805	6905	5297	3992	2761	1550
C90	21930	18149	14980	12570	11027	8873	7489	5898	4092
C180	17971	14199	11113	8649	6728	5115	3784	2560	1341
C270	22431	18603	15315	12640	11082	9104	7472	5833	4006

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.0

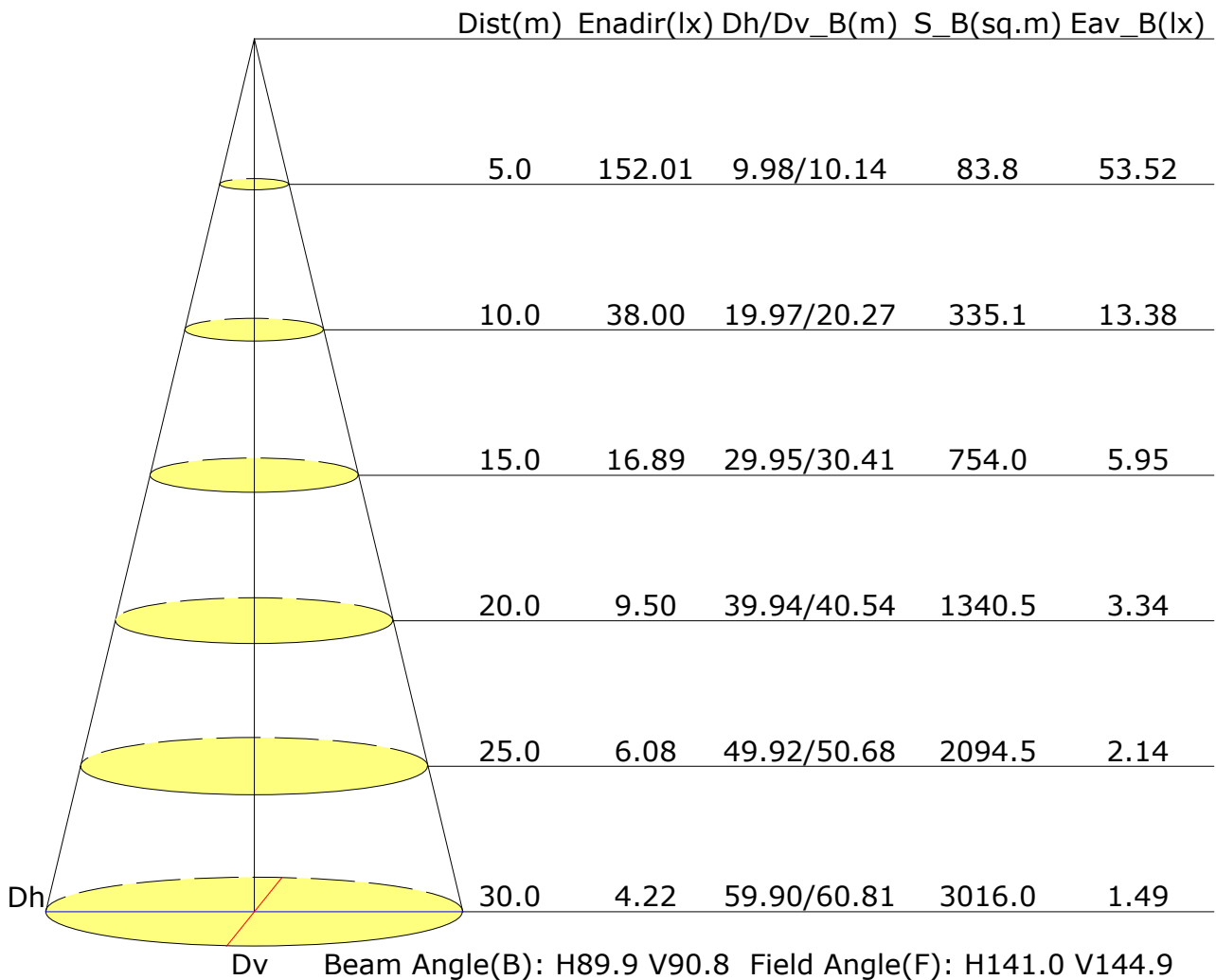
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

## Illuminance at a Distance



## 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	20.6	21.9	20.9	22.1	22.4	21.2	22.4	21.5	22.6	22.9
3H	21.2	22.3	21.5	22.5	22.8	21.9	23.0	22.2	23.3	23.6
4H	21.3	22.4	21.7	22.7	23.0	22.2	23.2	22.5	23.5	23.8
6H	21.4	22.4	21.8	22.7	23.0	22.4	23.3	22.7	23.6	24.0
8H	21.4	22.4	21.8	22.7	23.0	22.4	23.3	22.8	23.7	24.0
12H	21.4	22.3	21.8	22.7	23.0	22.4	23.3	22.8	23.7	24.0
X=4H Y=2H	21.0	22.0	21.3	22.3	22.6	21.4	22.5	21.8	22.8	23.1
3H	21.6	22.5	22.0	22.9	23.2	22.3	23.2	22.7	23.5	23.9
4H	21.9	22.7	22.3	23.0	23.4	22.6	23.4	23.1	23.8	24.2
6H	22.0	22.7	22.5	23.1	23.6	22.9	23.6	23.3	24.0	24.4
8H	22.1	22.7	22.5	23.1	23.6	23.0	23.6	23.5	24.1	24.5
12H	22.1	22.7	22.6	23.1	23.6	23.1	23.6	23.5	24.1	24.5
X=8H Y=4H	22.0	22.6	22.4	23.0	23.5	22.7	23.3	23.2	23.8	24.2
6H	22.2	22.7	22.7	23.2	23.7	23.0	23.6	23.5	24.0	24.5
8H	22.3	22.7	22.8	23.2	23.7	23.2	23.6	23.7	24.1	24.6
12H	22.3	22.7	22.8	23.2	23.7	23.3	23.7	23.8	24.1	24.7
X=12H Y=4H	22.0	22.5	22.4	23.0	23.4	22.7	23.3	23.1	23.7	24.2
6H	22.2	22.7	22.7	23.1	23.6	23.0	23.5	23.5	24.0	24.5
8H	22.3	22.7	22.8	23.2	23.7	23.2	23.6	23.7	24.1	24.6
Variations with the observer position at spacings:										
S=1.0H	+0.4/-0.8					+0.4/-0.5				
S=1.5H	+0.9/-1.6					+0.8/-1.2				
S=2.0H	+1.8/-2.5					+1.7/-2.1				

Calculate in accordance with CIE Pub.117. The table is revised with 8760lm ( $8\log(F/F_0) = 7.5$ ).

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

Gamma Plane (°):0.0-180.0:2.0  
 Test Device: LSG-1800B  
 Distance: 12.677 m  
 Humidity:  
 Inspector:

## Utilisation Factor Table(Floor cavity)

Utilisation Factors UF(F)			SHR NOM = 1.25								
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	0.65	0.75	0.82	0.86	0.93	0.97	1.00	1.03	1.06
	0.30		0.59	0.69	0.75	0.80	0.87	0.92	0.95	1.00	1.03
	0.20		0.54	0.64	0.71	0.76	0.83	0.88	0.92	0.97	1.00
0.50	0.50	0.20	0.64	0.73	0.79	0.84	0.89	0.93	0.96	0.99	1.01
	0.30		0.58	0.67	0.74	0.79	0.85	0.89	0.92	0.97	0.99
	0.20		0.53	0.63	0.70	0.75	0.81	0.86	0.89	0.94	0.97
0.30	0.50	0.20	0.62	0.71	0.77	0.81	0.86	0.90	0.92	0.96	0.97
	0.30		0.57	0.66	0.72	0.77	0.83	0.87	0.90	0.93	0.96
	0.20		0.53	0.62	0.69	0.73	0.80	0.84	0.87	0.91	0.94
0.00	0.00	0.00	0.51	0.60	0.66	0.70	0.76	0.80	0.83	0.87	0.89
<p>Rating:60W Photometrically tested without ceiling board.            Multiply UF values by service correction factors            Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>											

## Utilisation Factor Table(Wall)

Utilisation Factors UF(W)			SHR NOM = 1.25									
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	0.86	0.70	0.59	0.51	0.40	0.33	0.28	0.22	0.18	
	0.30		0.72	0.60	0.51	0.45	0.37	0.31	0.26	0.21	0.17	
	0.20		0.62	0.52	0.46	0.40	0.33	0.28	0.25	0.20	0.16	
0.50	0.50	0.20	0.83	0.67	0.56	0.48	0.38	0.35	0.27	0.21	0.17	
	0.30		0.70	0.58	0.50	0.43	0.35	0.29	0.25	0.20	0.16	
	0.20		0.61	0.51	0.44	0.39	0.32	0.27	0.24	0.19	0.16	
0.30	0.50	0.20	0.80	0.64	0.54	0.46	0.36	0.30	0.25	0.19	0.16	
	0.30		0.68	0.56	0.48	0.42	0.33	0.28	0.24	0.19	0.15	
	0.20		0.60	0.50	0.43	0.38	0.31	0.26	0.23	0.18	0.15	
0.00	0.00	0.00	0.48	0.39	0.33	0.29	0.23	0.19	0.16	0.13	0.10	
<p>Rating:60W Photometrically tested without ceiling board.            Multiply UF values by service correction factors            Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>												

## Utilisation Factor Table(Ceiling cavity)

Utilisation Factors UF(C)			SHR NOM = 1.25								
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	0.18	0.18	0.19	0.20	0.21	0.21	0.22	0.22
	0.30		0.10	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20
	0.20		0.06	0.08	0.09	0.11	0.13	0.14	0.15	0.17	0.18
0.50	0.50	0.20	0.16	0.17	0.18	0.18	0.19	0.20	0.20	0.21	0.21
	0.30		0.10	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20
	0.20		0.06	0.08	0.09	0.11	0.12	0.14	0.15	0.17	0.18
0.30	0.50	0.20	0.15	0.16	0.17	0.18	0.19	0.19	0.20	0.20	0.21
	0.30		0.10	0.11	0.13	0.14	0.15	0.16	0.17	0.18	0.19
	0.20		0.06	0.08	0.09	0.10	0.12	0.14	0.15	0.16	0.17
0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
<p>Rating:60W Photometrically tested without ceiling board.            Multiply UF values by service correction factors            Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>											