

Report No.: 1

Test Time: 15.08.2019 10:20

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FG 190 76W 4000K

Luminous Length (mm): 1210

Luminous Height (mm): 86

Current: 0.353 A

Power Factor: 0.977

Lamp Description: LED

Luminous Width (mm): 189

Voltage: 221.2 V

Power: 76.51 W

Photometric Results

CIE Class: Direct

Measurement Flux: 10907 lm

Downward Ratio: 99%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 152.5, 72.5, 92.1, 90.9

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 110.5, 54.8, 71.0, 70.1

Luminaire Efficacy Rating (LER): 142.61

Max. Intensity: 8101.57 cd

S/MH(C0/C180): 1.27

Total Rated Lamp Lumens: 10907.0 lm

Efficiency: 100%

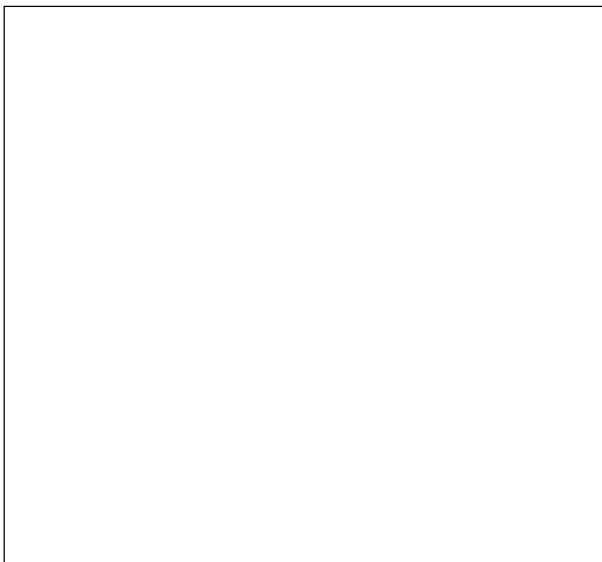
Upward Ratio: 1%

Central Intensity: 8094.79 cd

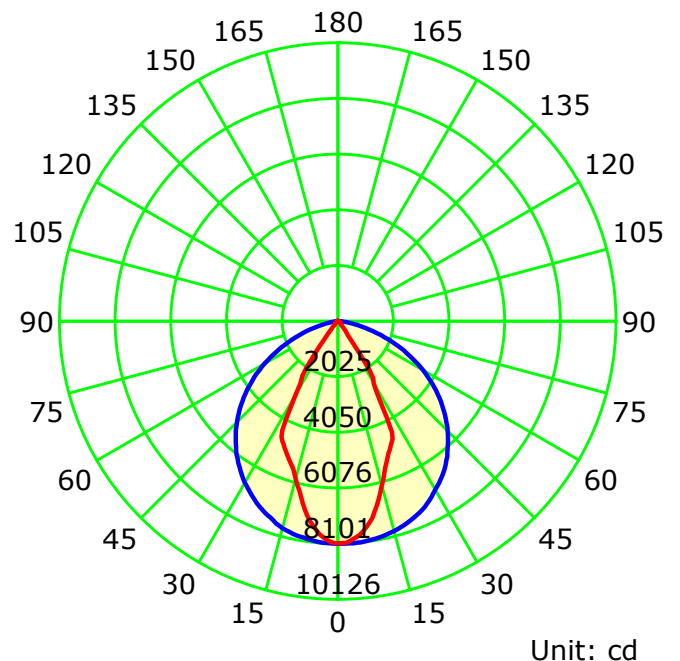
Pos of Max. Intensity: H0 V4

S/MH(C90/C270): 0.81

Picture Of Luminaire



Luminous Intensity Distribution Curve



— 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

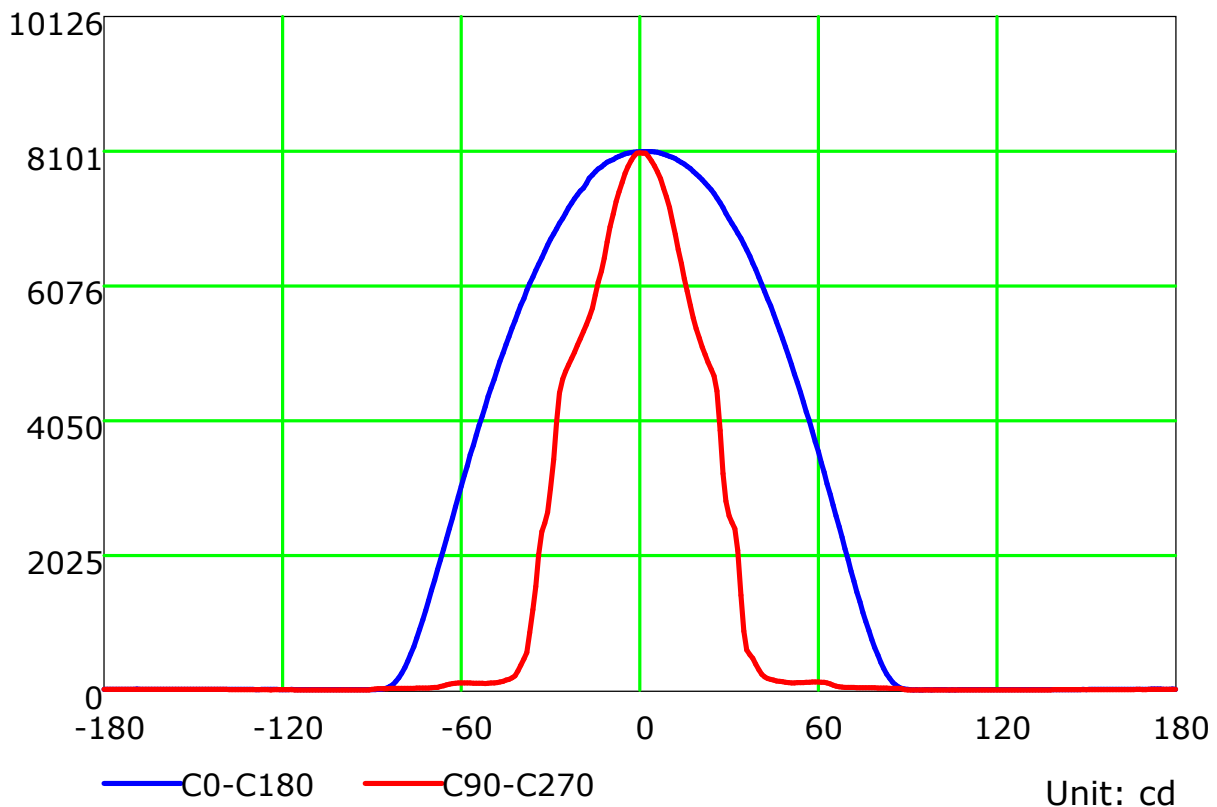
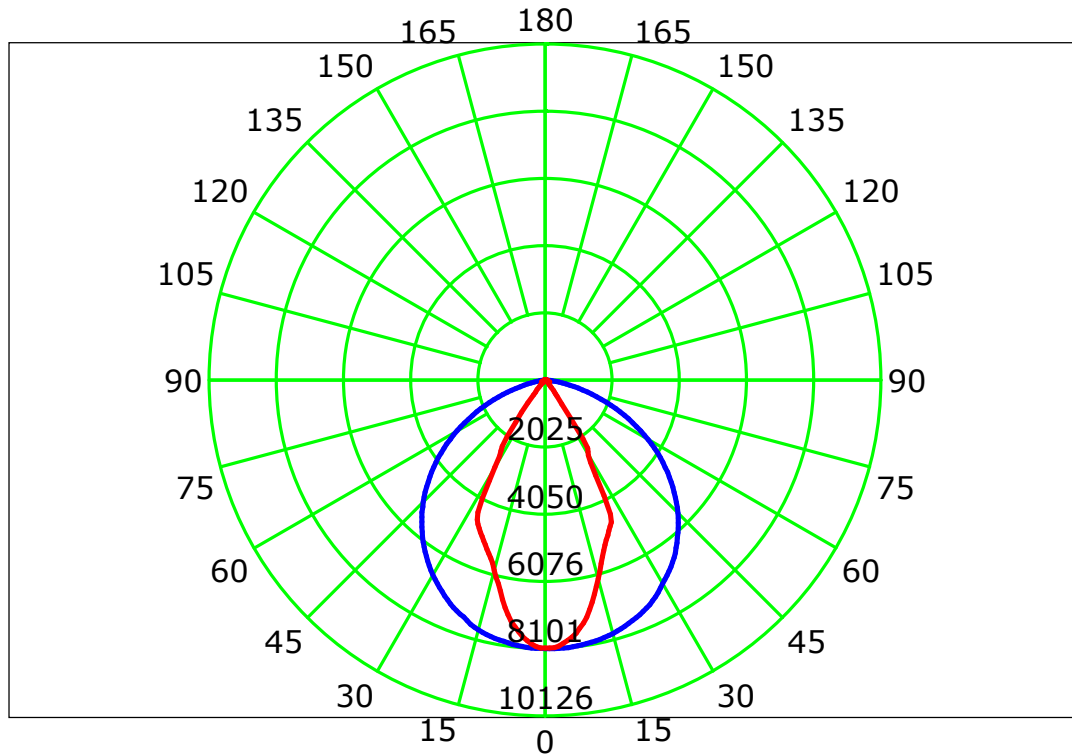
Test Device: LSG-1800B

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

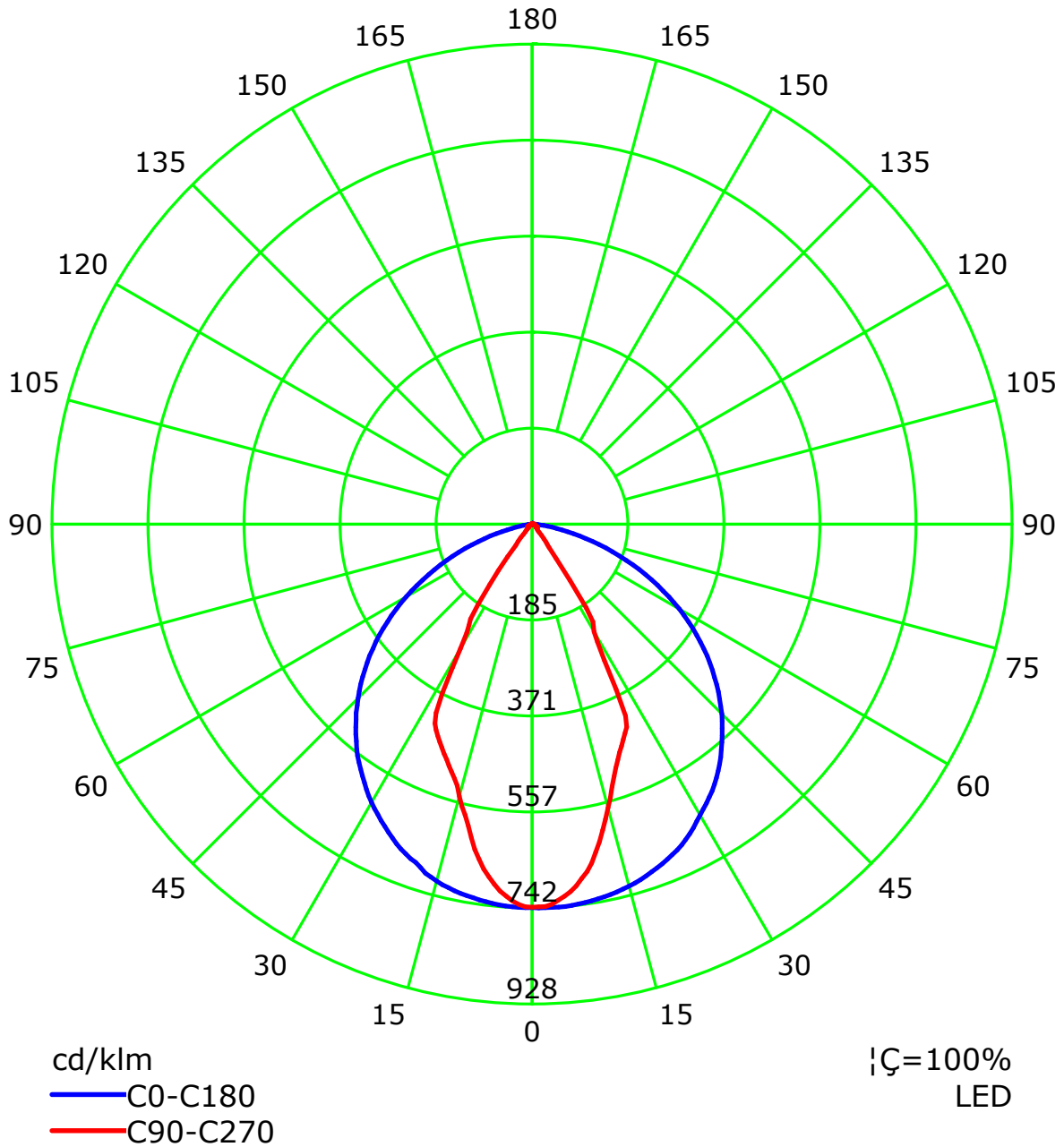
Test Device: LSG-1800B

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

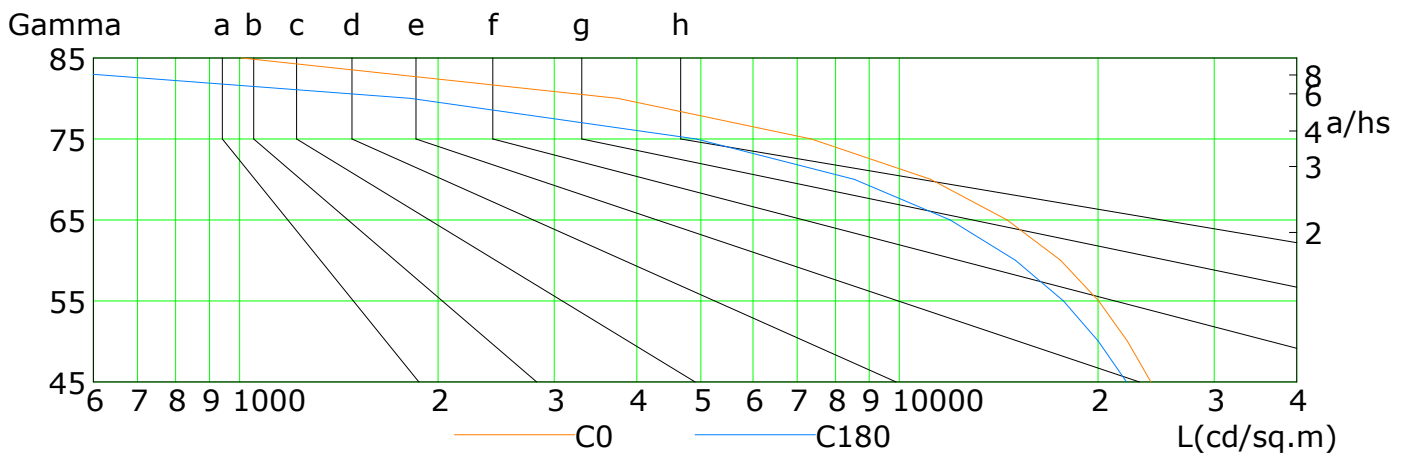
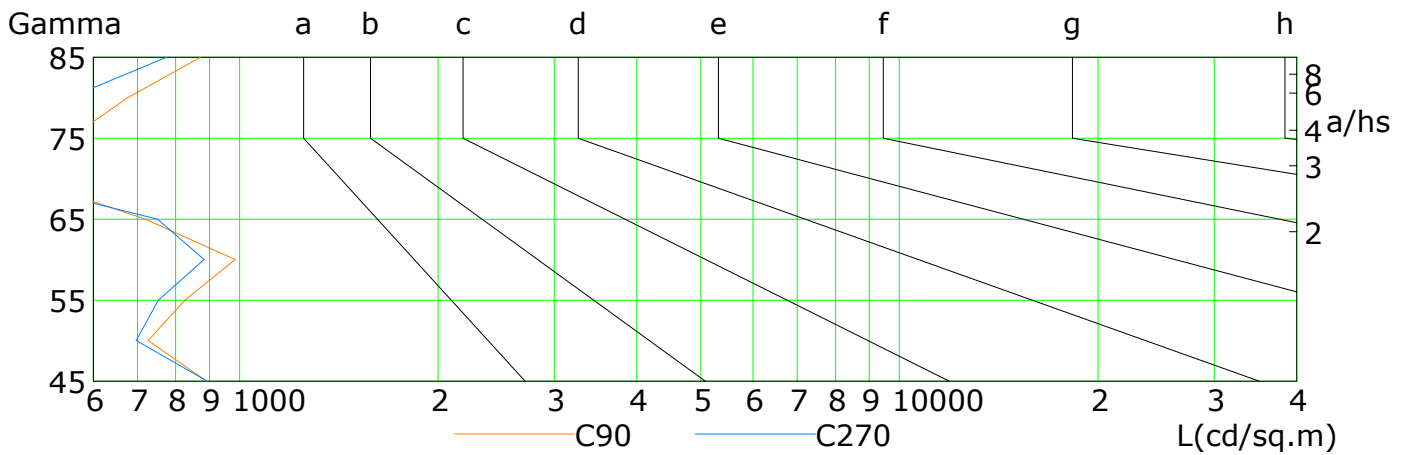
Humidity:

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	24063	22171	20039	17558	14569	11154	7350	3740	1006
C90	892	727	826	985	720	473	551	677	873
C180	22092	20034	17728	14997	11942	8535	4926	1814	289
C270	894	697	753	884	752	429	457	550	775

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

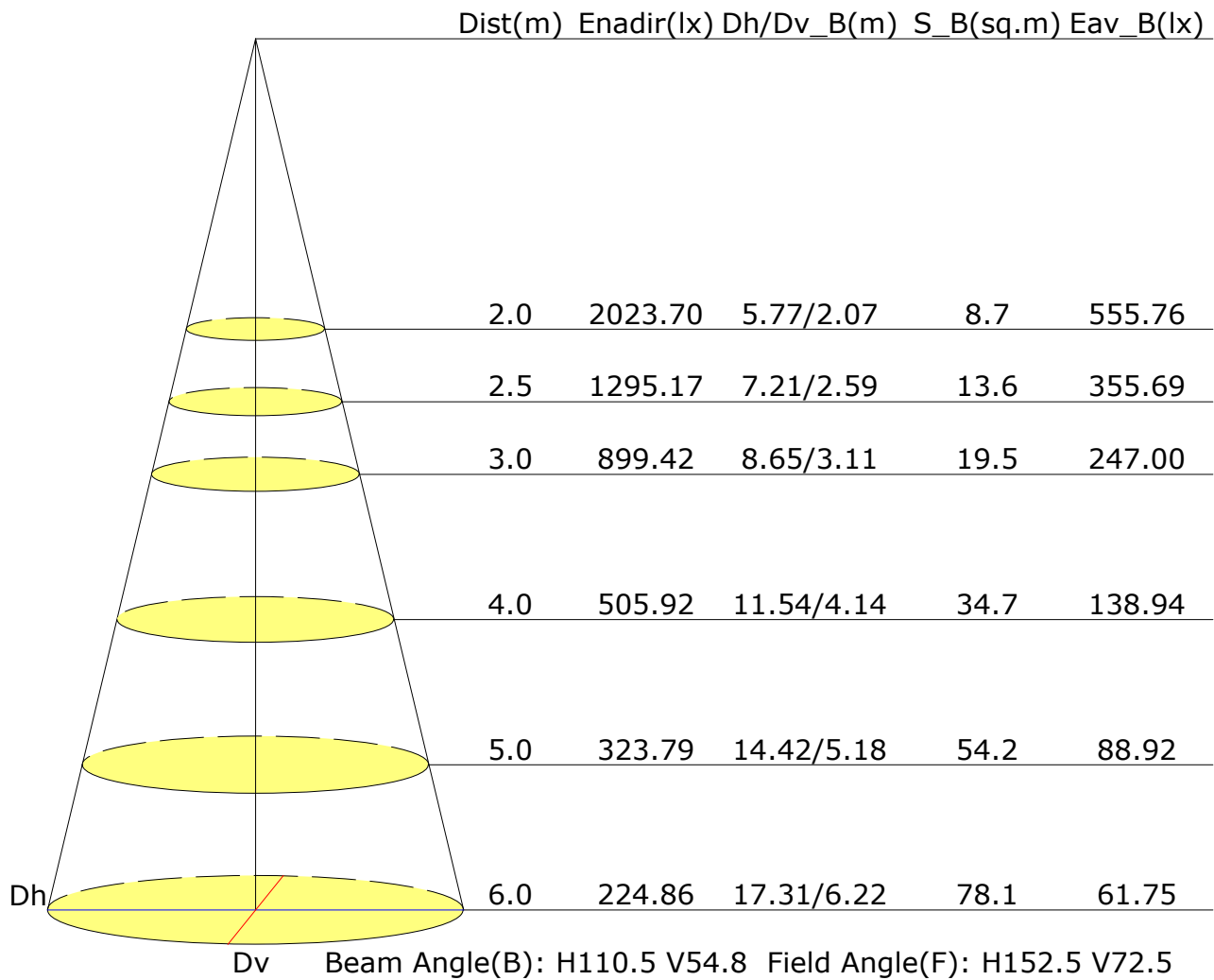
Test Device: LSG-1800B

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	22.7	23.8	23.0	24.0	24.2	10.9	12.0	11.2	12.2	12.5
3H	23.6	24.6	23.9	24.9	25.1	10.9	11.9	11.2	12.1	12.4
4H	23.9	24.9	24.3	25.1	25.4	10.9	11.8	11.2	12.1	12.4
6H	24.1	24.9	24.4	25.2	25.6	10.9	11.7	11.2	12.0	12.4
8H	24.1	24.9	24.4	25.2	25.6	10.9	11.7	11.3	12.0	12.4
12H	24.1	24.8	24.4	25.2	25.5	10.9	11.7	11.3	12.0	12.4
X=4H Y=2H	22.4	23.4	22.8	23.7	23.9	11.8	12.7	12.1	13.0	13.3
3H	23.4	24.2	23.8	24.5	24.8	11.8	12.5	12.1	12.9	13.2
4H	23.7	24.4	24.1	24.8	25.2	11.7	12.4	12.1	12.8	13.2
6H	23.9	24.5	24.3	24.9	25.3	11.8	12.4	12.2	12.8	13.2
8H	23.9	24.5	24.4	24.9	25.3	11.8	12.4	12.2	12.8	13.2
12H	23.9	24.4	24.4	24.8	25.3	11.9	12.4	12.3	12.8	13.2
X=8H Y=4H	23.6	24.2	24.0	24.6	25.0	11.7	12.3	12.2	12.7	13.1
6H	23.8	24.2	24.3	24.7	25.2	11.8	12.3	12.3	12.7	13.2
8H	23.8	24.2	24.3	24.7	25.2	11.9	12.3	12.4	12.7	13.2
12H	23.8	24.1	24.3	24.6	25.1	12.0	12.3	12.5	12.8	13.3
X=12H Y=4H	23.6	24.1	24.0	24.5	24.9	11.7	12.2	12.2	12.7	13.1
6H	23.7	24.1	24.2	24.6	25.1	11.8	12.2	12.3	12.7	13.2
8H	23.8	24.1	24.3	24.6	25.1	11.9	12.2	12.4	12.7	13.2
Variations with the observer position at spacings:										
S=1.0H	+0.5/-0.7					+4.0/-5.7				
S=1.5H	+2.2/-4.2					+5.8/-5.7				
S=2.0H	+3.6/-8.0					+6.9/-6.9				

Calculate in accordance with CIE Pub.117. The table is revised with 10907lm ($8\log(F/F_0) = 8.3$).

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	0.65	0.75	0.82	0.87	0.93	0.98	1.00	1.04	1.06	
	0.30		0.58	0.69	0.76	0.81	0.88	0.93	0.96	1.01	1.04	
	0.20		0.54	0.64	0.71	0.77	0.84	0.89	0.93	0.98	1.01	
0.50	0.50	0.20	0.64	0.73	0.80	0.84	0.90	0.94	0.97	1.00	1.02	
	0.30		0.58	0.68	0.74	0.79	0.86	0.91	0.94	0.98	1.00	
	0.20		0.53	0.63	0.70	0.75	0.83	0.87	0.91	0.95	0.98	
0.30	0.50	0.20	0.62	0.72	0.78	0.82	0.88	0.91	0.94	0.97	0.99	
	0.30		0.57	0.67	0.73	0.78	0.84	0.88	0.91	0.95	0.97	
	0.20		0.53	0.63	0.69	0.74	0.81	0.85	0.89	0.93	0.95	
0.00	0.00	0.00	0.51	0.60	0.67	0.72	0.78	0.82	0.85	0.88	0.90	
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	0.86	0.70	0.58	0.50	0.39	0.32	0.27	0.21	0.17	
	0.30		0.72	0.60	0.51	0.44	0.35	0.29	0.25	0.20	0.16	
	0.20		0.62	0.52	0.45	0.40	0.32	0.27	0.24	0.19	0.15	
0.50	0.50	0.20	0.83	0.67	0.56	0.48	0.37	0.34	0.26	0.20	0.16	
	0.30		0.70	0.58	0.49	0.43	0.34	0.28	0.24	0.19	0.15	
	0.20		0.61	0.51	0.44	0.39	0.31	0.26	0.23	0.18	0.15	
0.30	0.50	0.20	0.81	0.64	0.53	0.45	0.35	0.29	0.24	0.18	0.15	
	0.30		0.69	0.56	0.48	0.41	0.33	0.27	0.23	0.18	0.14	
	0.20		0.60	0.50	0.43	0.38	0.30	0.25	0.22	0.17	0.14	
0.00	0.00	0.00	0.49	0.40	0.33	0.28	0.22	0.18	0.15	0.12	0.10	
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	0.15	0.16	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	0.14	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: