

Report No.: 1

Test Time: 16.12.2019 22:35

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FG 180 4x24LED 0.4A 20.5W 5000K opal

Luminous Length (mm): 1200

Luminous Width (mm): 180

Luminous Height (mm): 35

Voltage: 221.3 V

Current: 0.095 A

Power: 20.35 W

Power Factor: 0.963

Photometric Results

CIE Class: Direct

Measurement Flux: 2161.6 lm

Downward Ratio: 99%

Total Rated Lamp Lumens: 2161.6 lm

Efficiency: 100%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 164.7, 164.1, 164.5, 164.3

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 112.3, 111.5, 112.0, 111.9

Luminaire Efficacy Rating (LER): 106.27

Central Intensity: 745.5 cd

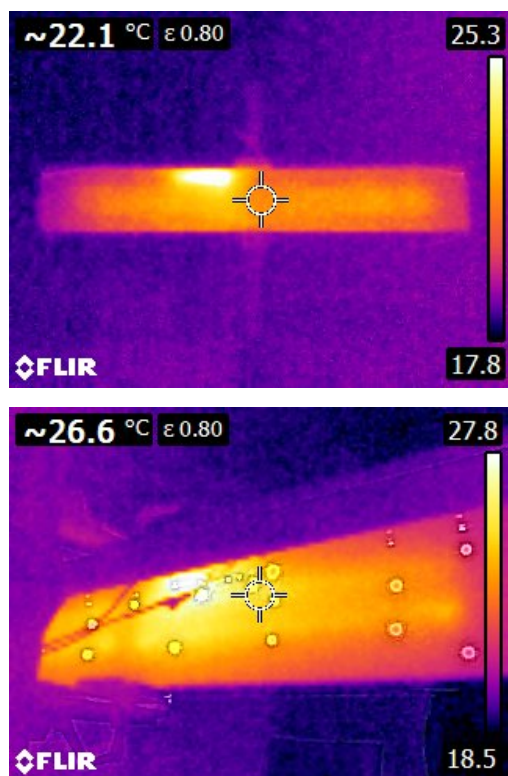
Max. Intensity: 745.71 cd

Pos of Max. Intensity: H45 V0

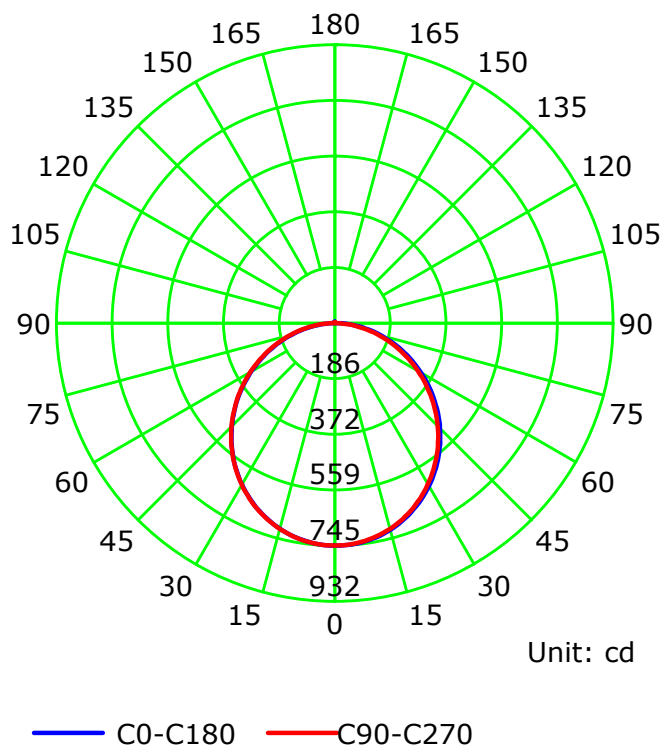
S/MH(C0/C180): 1.25

S/MH(C90/C270): 1.25

Termogramma



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

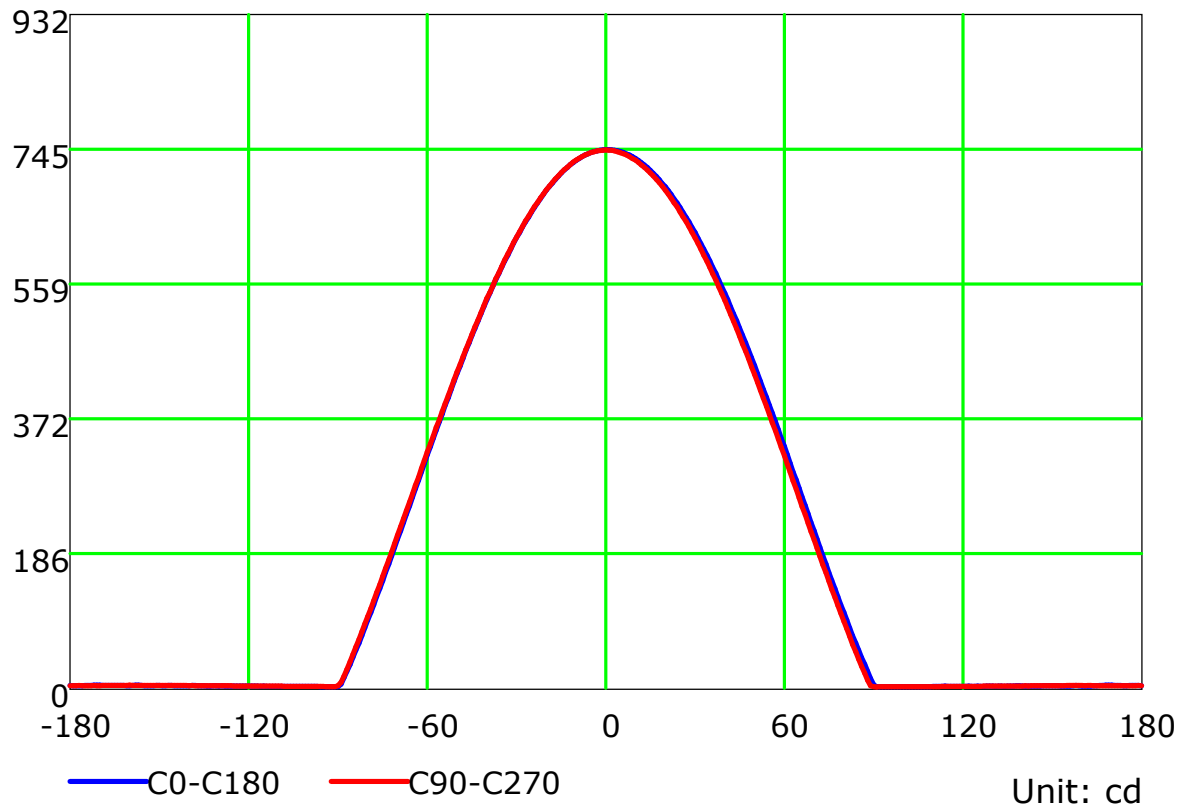
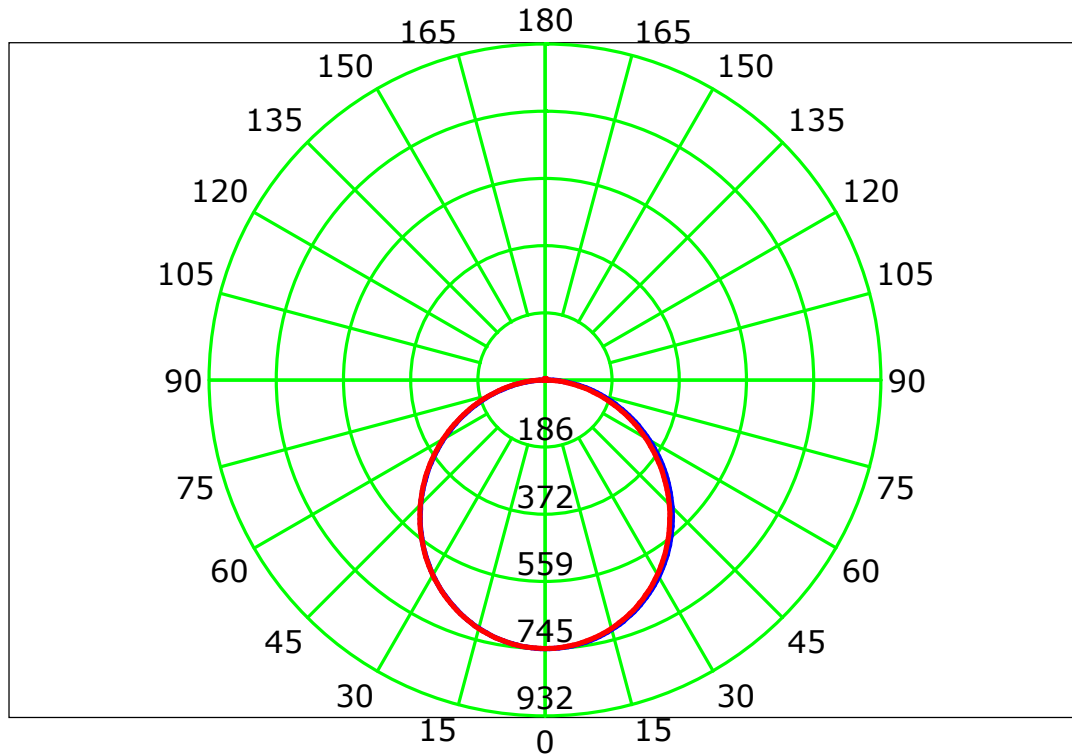
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

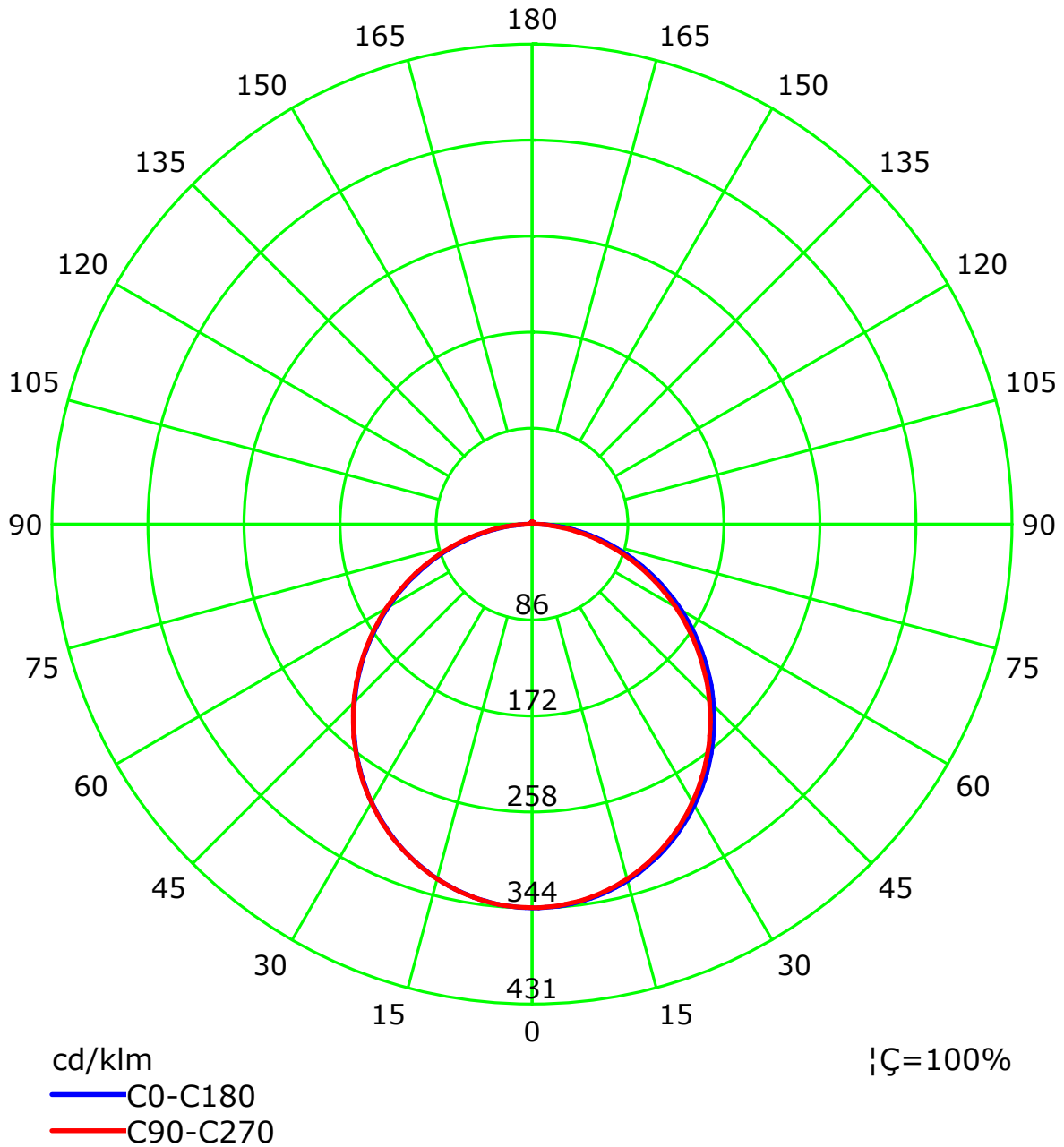
Luminous Intensity Distribution Curve



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

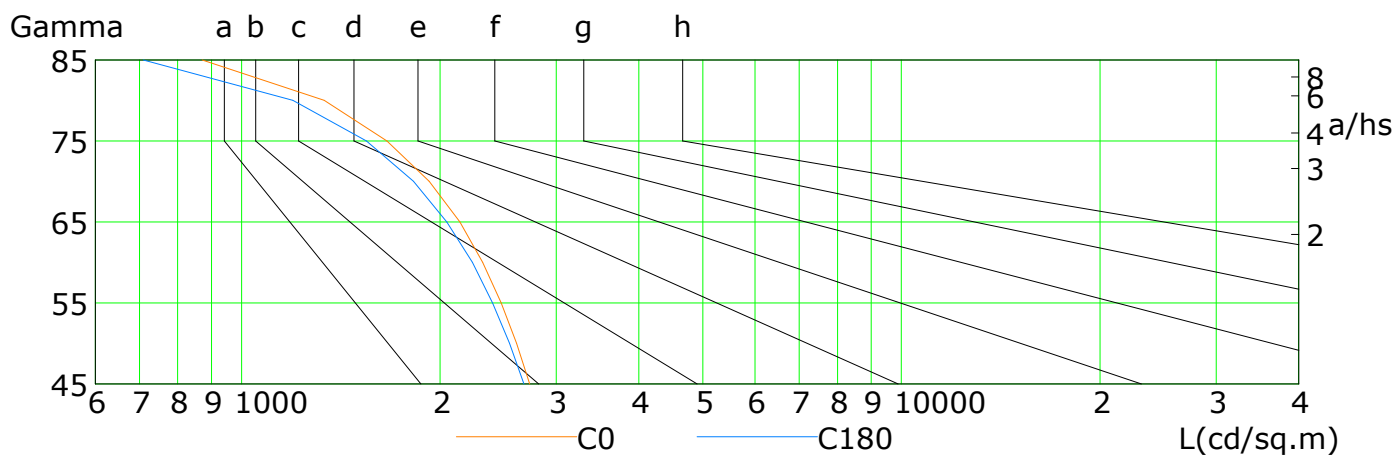
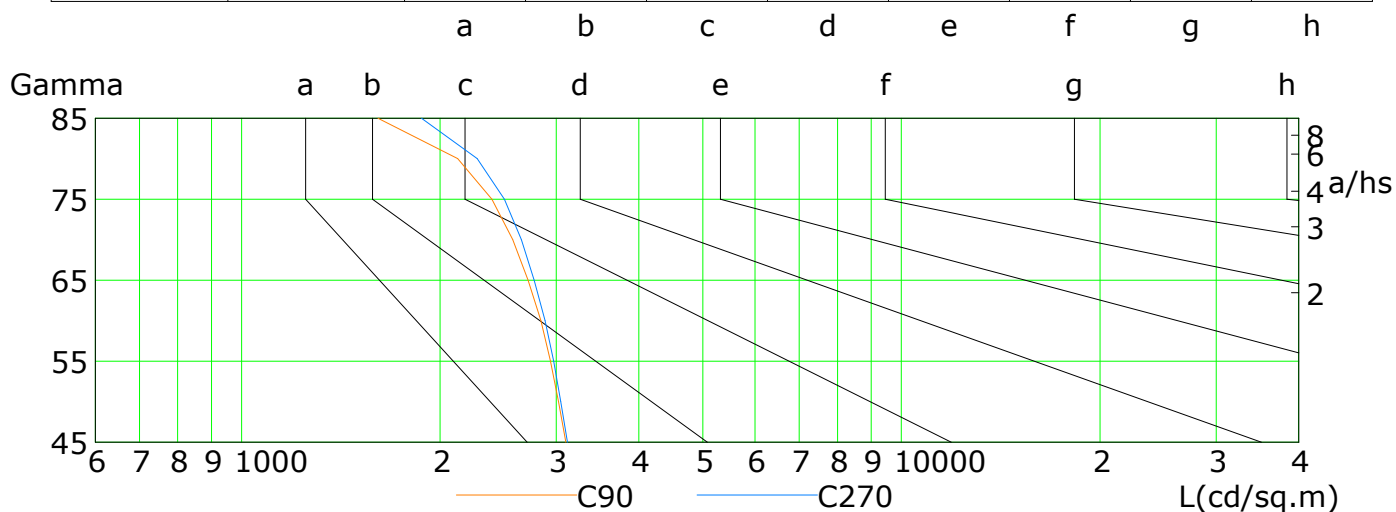
Gamma Plane (°):0.0-180.0:1.0
Test Device: LSG-1800B
Distance: 12.677 m
Humidity:
Inspector:

Luminous Intensity Distribution Curve(cd/klm)



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

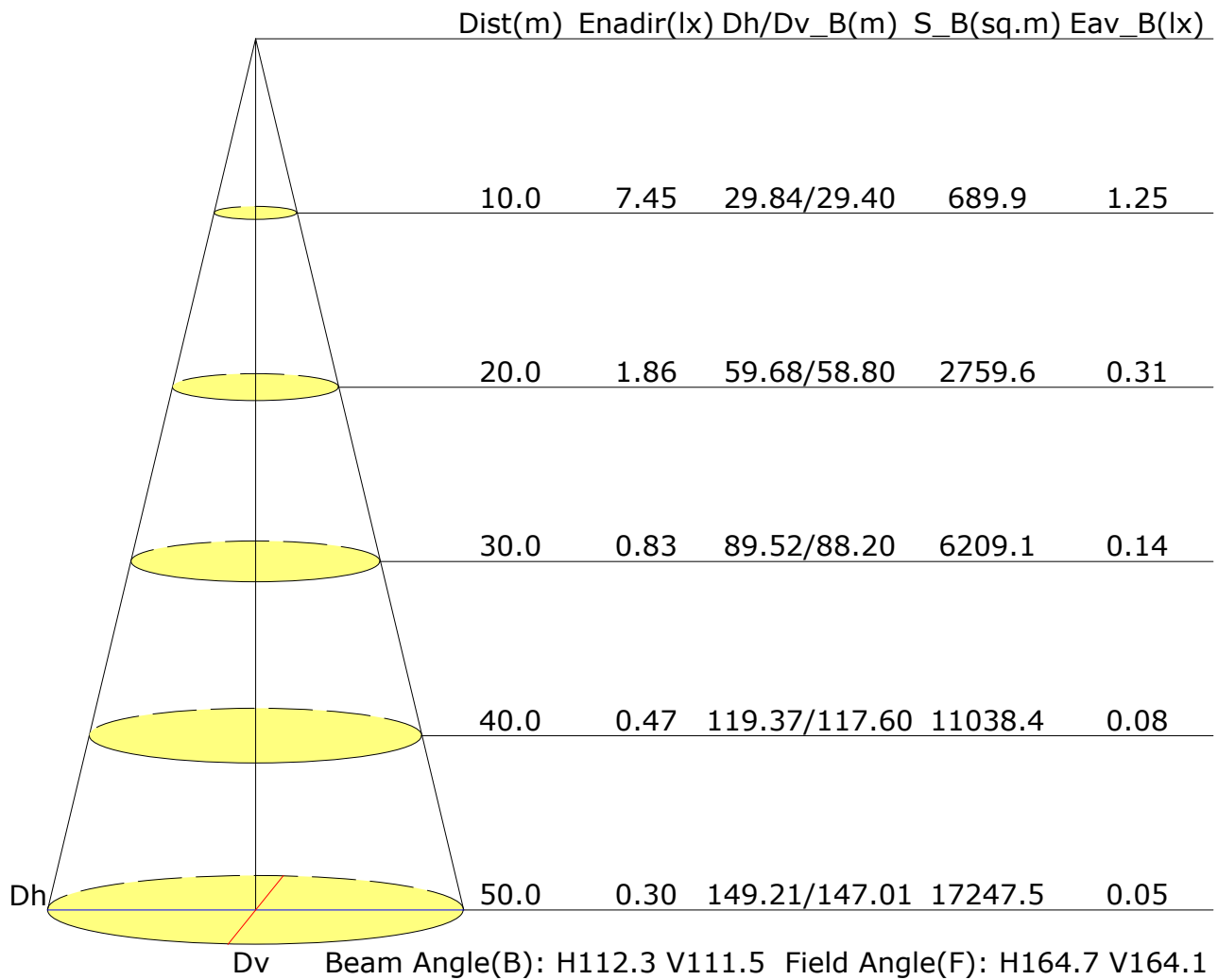


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	2733	2611	2473	2319	2142	1924	1661	1334	872
C90	3100	3021	2939	2840	2719	2576	2396	2126	1610
C180	2677	2547	2400	2237	2046	1822	1545	1196	710
C270	3117	3047	2971	2883	2775	2655	2501	2276	1874

C Plane (°):0.0-360.0: 22.5
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 Temperature:
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Gamma Plane (°):0.0-180.0:1.0
 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	15.7	17.1	16.0	17.4	17.6	16.1	17.5	16.4	17.7	18.0
3H	17.2	18.5	17.5	18.8	19.1	17.7	18.9	18.0	19.2	19.5
4H	17.8	19.0	18.1	19.3	19.6	18.3	19.5	18.7	19.8	20.1
6H	18.2	19.3	18.6	19.6	20.0	18.8	19.9	19.2	20.3	20.6
8H	18.3	19.4	18.7	19.7	20.1	19.0	20.1	19.4	20.4	20.8
12H	18.4	19.4	18.8	19.8	20.1	19.1	20.1	19.5	20.5	20.8
X=4H Y=2H	16.4	17.6	16.8	17.9	18.2	16.7	17.9	17.0	18.2	18.5
3H	18.0	19.1	18.4	19.4	19.8	18.4	19.5	18.8	19.8	20.2
4H	18.7	19.7	19.2	20.0	20.4	19.2	20.1	19.6	20.5	20.9
6H	19.3	20.1	19.7	20.5	20.9	19.8	20.7	20.3	21.1	21.5
8H	19.5	20.2	19.9	20.6	21.1	20.1	20.8	20.5	21.2	21.7
12H	19.6	20.3	20.0	20.7	21.2	20.2	20.9	20.7	21.3	21.8
X=8H Y=4H	19.0	19.8	19.5	20.2	20.7	19.5	20.2	19.9	20.6	21.1
6H	19.7	20.3	20.2	20.8	21.3	20.2	20.8	20.7	21.3	21.8
8H	20.0	20.5	20.5	21.0	21.5	20.5	21.1	21.0	21.5	22.0
12H	20.1	20.6	20.6	21.1	21.6	20.7	21.2	21.2	21.7	22.2
X=12H Y=4H	19.1	19.8	19.5	20.2	20.7	19.5	20.2	19.9	20.6	21.1
6H	19.8	20.3	20.3	20.8	21.3	20.3	20.8	20.8	21.3	21.8
8H	20.1	20.5	20.6	21.0	21.5	20.6	21.1	21.1	21.6	22.1
Variations with the observer position at spacings:										
S=1.0H	+0.2/-0.2					+0.2/-0.1				
S=1.5H	+0.3/-0.5					+0.3/-0.4				
S=2.0H	+0.5/-0.9					+0.5/-0.7				

Calculate in accordance with CIE Pub.117. The table is revised with $2162lm$ ($8\log(F/F_0) = 2.7$).

C Plane (°):0.0-360.0: 22.5
 Test Lab:
 Test Type: TYPE C
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Gamma Plane (°):0.0-180.0:1.0
 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	0.56	0.66	0.73	0.79	0.86	0.91	0.95	1.00	1.03	
	0.30		0.48	0.58	0.66	0.72	0.80	0.86	0.90	0.95	0.99	
	0.20		0.42	0.52	0.60	0.66	0.75	0.81	0.85	0.91	0.96	
0.50	0.50	0.20	0.54	0.64	0.71	0.76	0.83	0.88	0.91	0.95	0.98	
	0.30		0.47	0.57	0.64	0.70	0.77	0.83	0.87	0.92	0.95	
	0.20		0.42	0.52	0.59	0.65	0.73	0.79	0.83	0.89	0.92	
0.30	0.50	0.20	0.53	0.62	0.68	0.73	0.80	0.84	0.87	0.92	0.94	
	0.30		0.46	0.56	0.63	0.68	0.75	0.80	0.84	0.89	0.92	
	0.20		0.41	0.51	0.58	0.64	0.71	0.77	0.81	0.86	0.89	
0.00	0.00	0.00	0.39	0.48	0.55	0.60	0.68	0.73	0.76	0.81	0.84	
Rating:20W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

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	1.01	0.84	0.71	0.62	0.50	0.42	0.36	0.28	0.23	
	0.30		0.84	0.72	0.62	0.55	0.45	0.38	0.33	0.26	0.22	
	0.20		0.72	0.62	0.55	0.50	0.41	0.35	0.31	0.25	0.21	
0.50	0.50	0.20	0.97	0.80	0.68	0.60	0.48	0.43	0.34	0.26	0.22	
	0.30		0.82	0.70	0.60	0.54	0.44	0.37	0.32	0.25	0.21	
	0.20		0.71	0.62	0.54	0.48	0.40	0.34	0.30	0.24	0.20	
0.30	0.50	0.20	0.94	0.77	0.66	0.57	0.46	0.38	0.32	0.25	0.21	
	0.30		0.81	0.68	0.59	0.52	0.42	0.35	0.31	0.24	0.20	
	0.20		0.71	0.61	0.53	0.47	0.39	0.33	0.29	0.23	0.19	
0.00	0.00	0.00	0.60	0.51	0.44	0.39	0.32	0.27	0.23	0.18	0.15	
Rating:20W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												

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	0.17	0.19	0.19	0.20	0.21	0.22	0.22	0.22	0.23	
	0.30		0.10	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20	
	0.20		0.05	0.07	0.09	0.10	0.12	0.13	0.15	0.16	0.18	
0.50	0.50	0.20	0.17	0.18	0.19	0.19	0.20	0.21	0.21	0.22	0.22	
	0.30		0.10	0.12	0.13	0.14	0.15	0.17	0.17	0.19	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	0.16	0.17	0.18	0.19	0.19	0.20	0.20	0.21	0.21	
	0.30		0.10	0.11	0.13	0.14	0.15	0.16	0.17	0.18	0.19	
	0.20		0.05	0.07	0.08	0.09	0.11	0.13	0.14	0.15	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	
Rating:20W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												