

Report No.:

Test Time: 17.04.2020 20:17

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FL 60 2x96LED 0,45A 45W 4000K frozen

Luminous Length (mm): 1500

Luminous Width (mm): 60

Luminous Height (mm): 70

Voltage: 228.7 V

Current: 0.199 A

Power: 44.86 W

Power Factor: 0.981

Photometric Results

CIE Class: Direct

Measurement Flux: 5608.6 lm

Downward Ratio: 100%

Total Rated Lamp Lumens: 5608.6 lm

Efficiency: 100%

Upward Ratio: 0%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 155.3, 149.5, 152.2, 152.4

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 98.3, 90.0, 94.4, 95.0

Luminaire Efficacy Rating (LER): 125.07

Central Intensity: 2407.33 cd

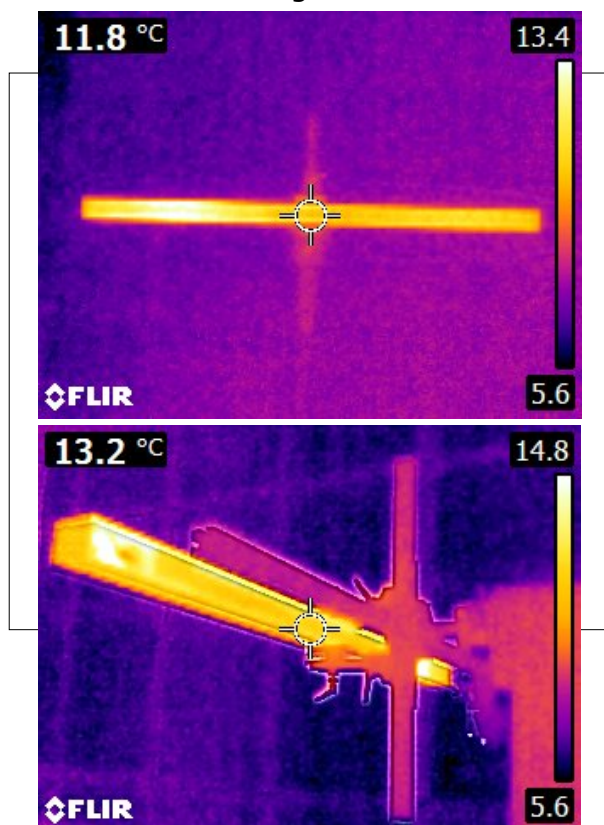
Max. Intensity: 2407.34 cd

Pos of Max. Intensity: H0 V0

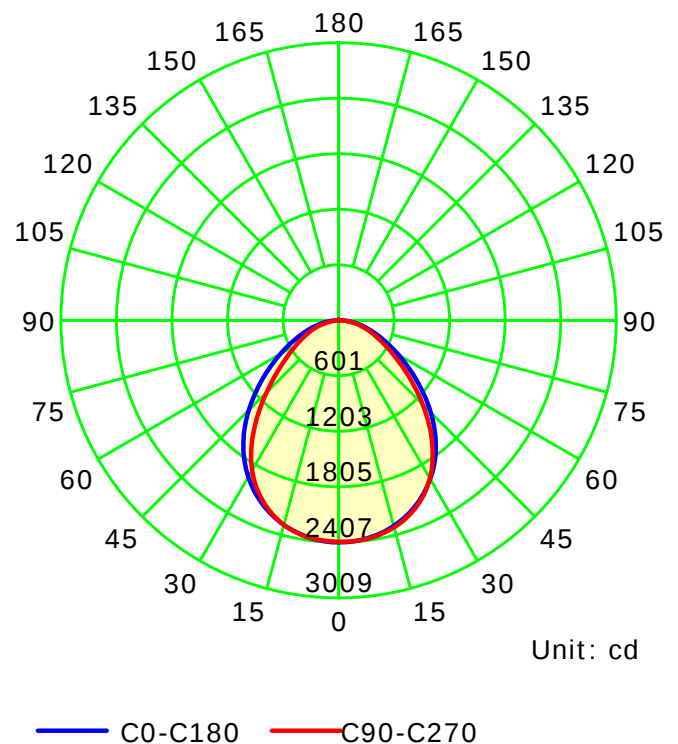
S/MH(C0/C180): 1.22

S/MH(C90/C270): 1.19

Termogramma



Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.0

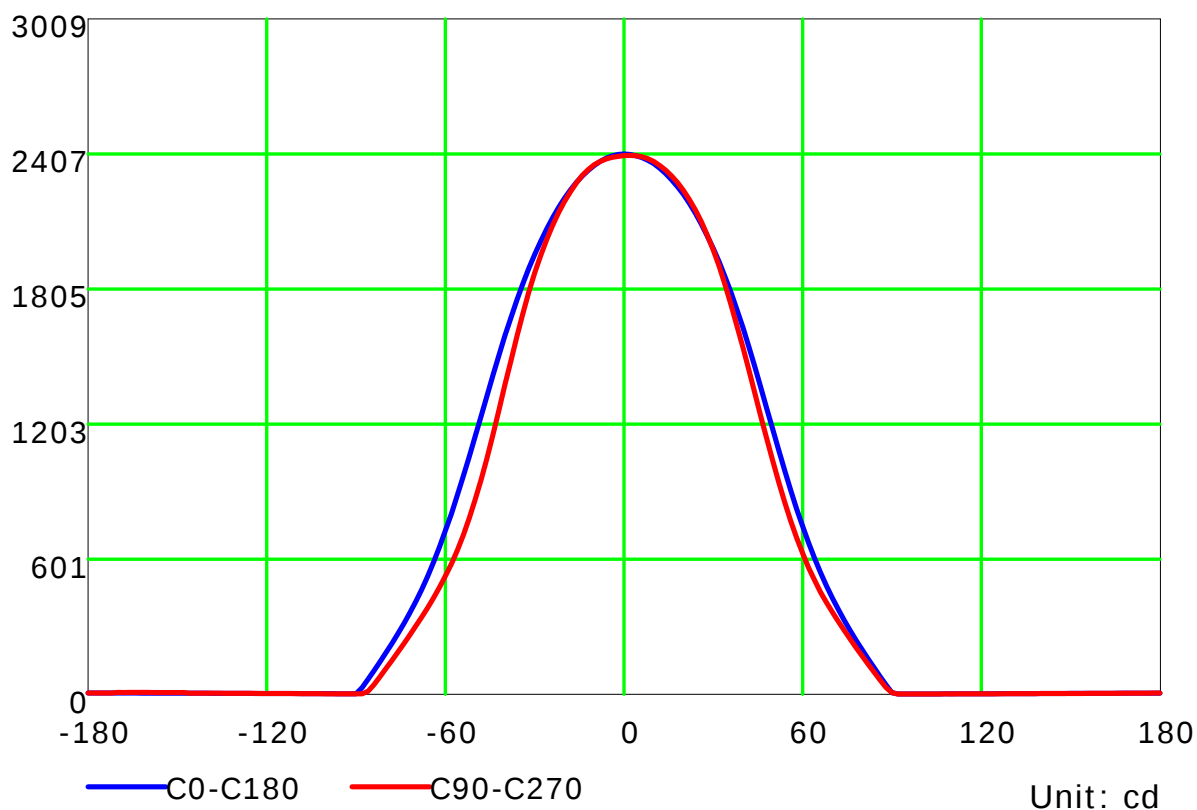
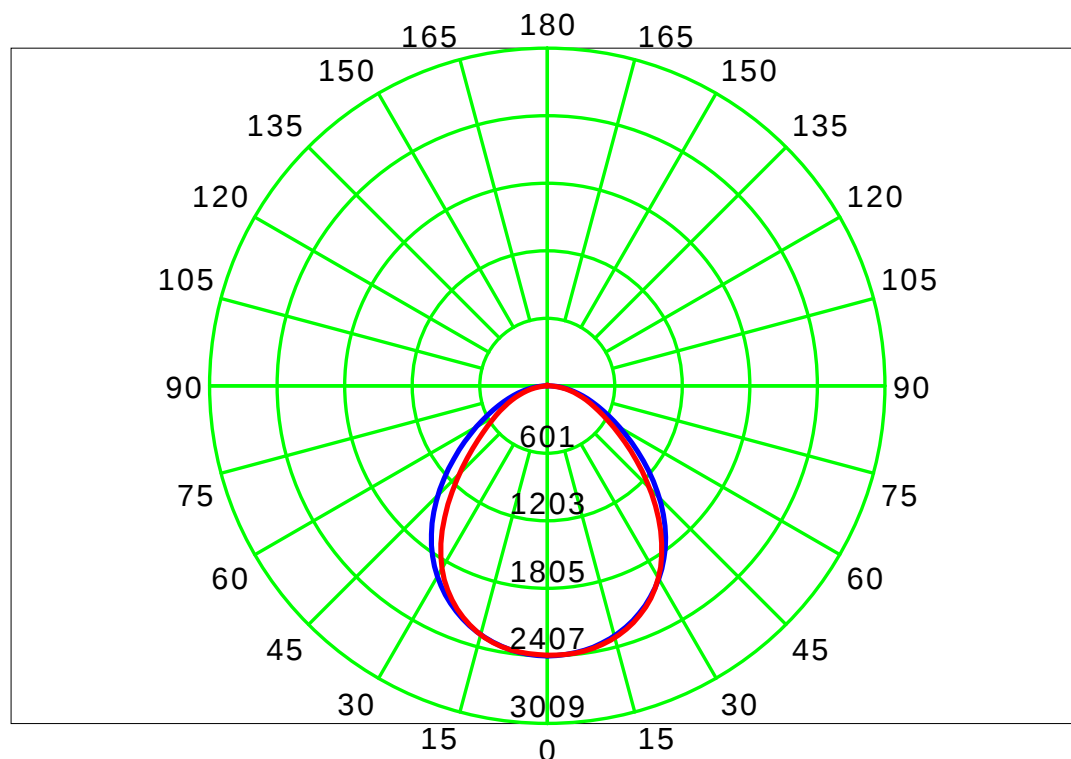
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Luminous Intensity Distribution Curve



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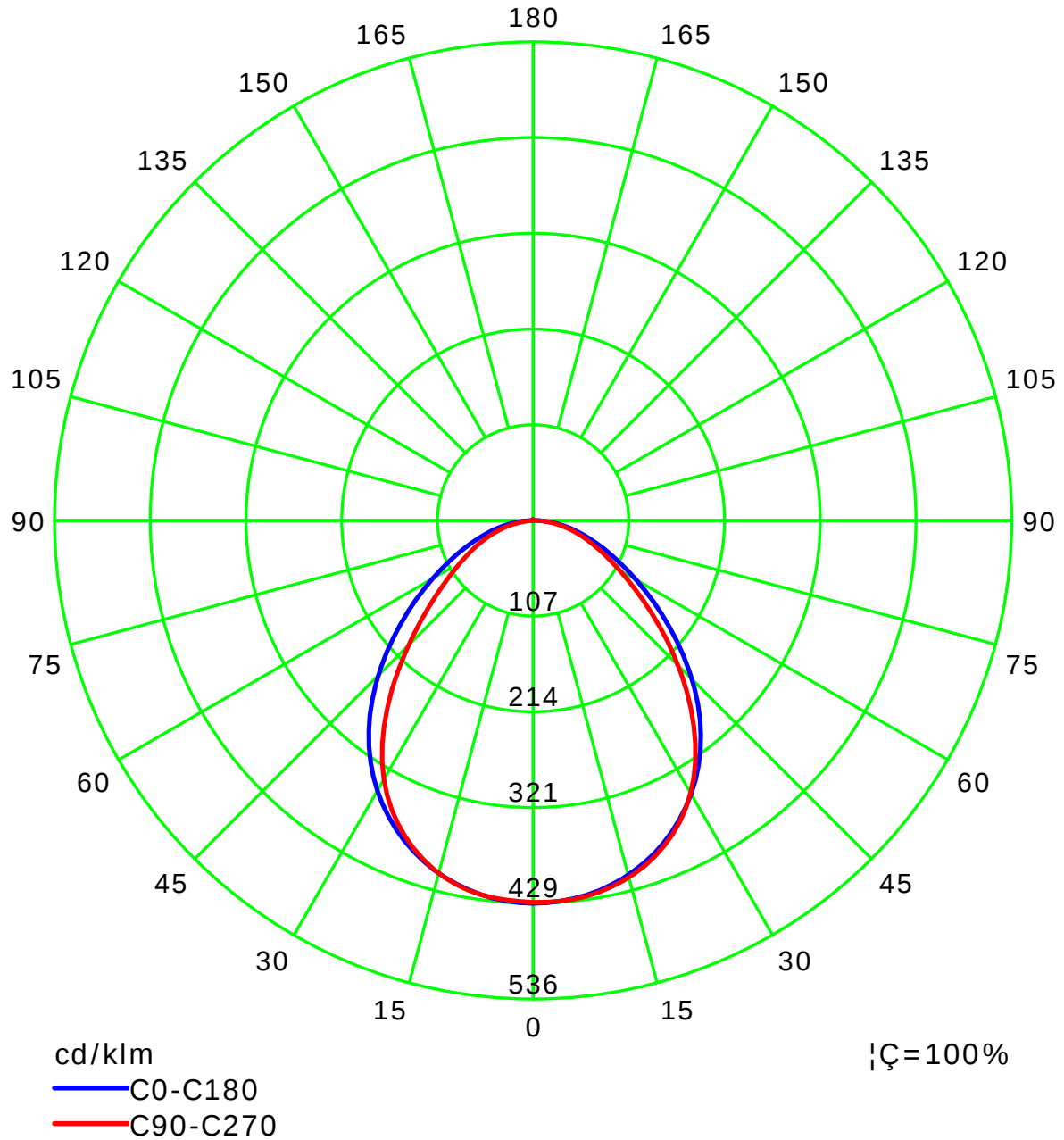
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Luminous Intensity Distribution Curve(cd / klm)



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Distance: 12.677 m

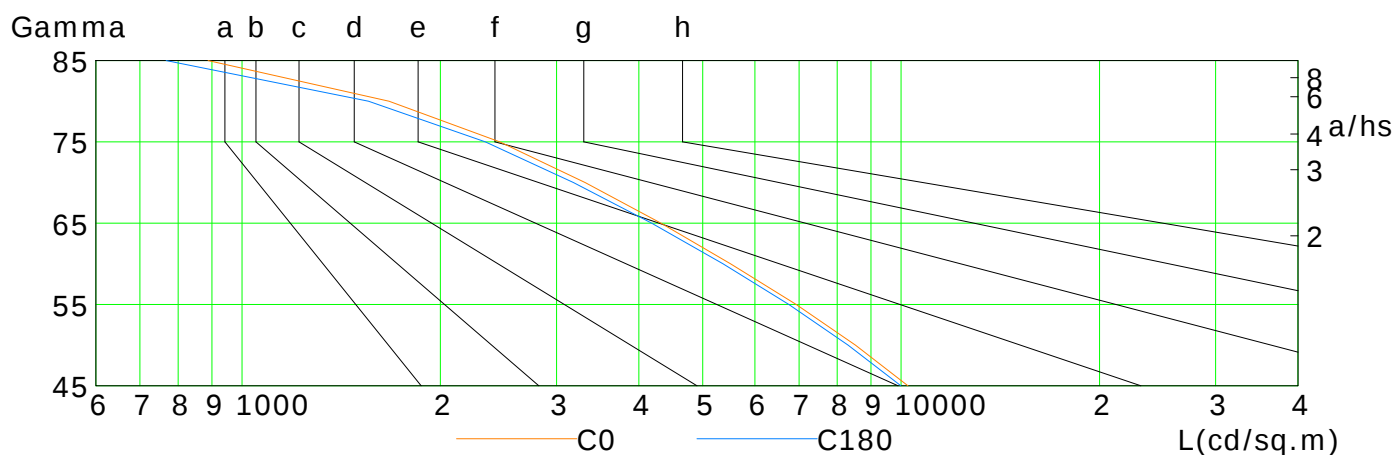
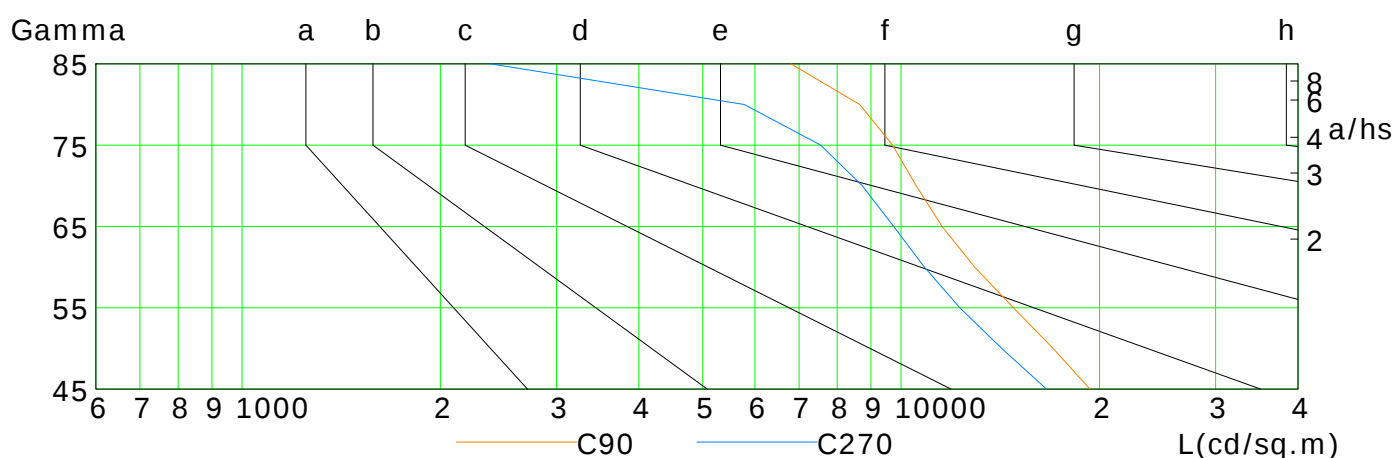
Humidity:

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	10240	8524	6931	5511	4320	3315	2460	1671	888
C90	19344	17003	14800	12929	11538	10542	9707	8653	6805
C180	9994	8308	6756	5368	4182	3183	2340	1555	767
C270	16623	14209	12273	10846	9742	8730	7552	5784	2384

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Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.0

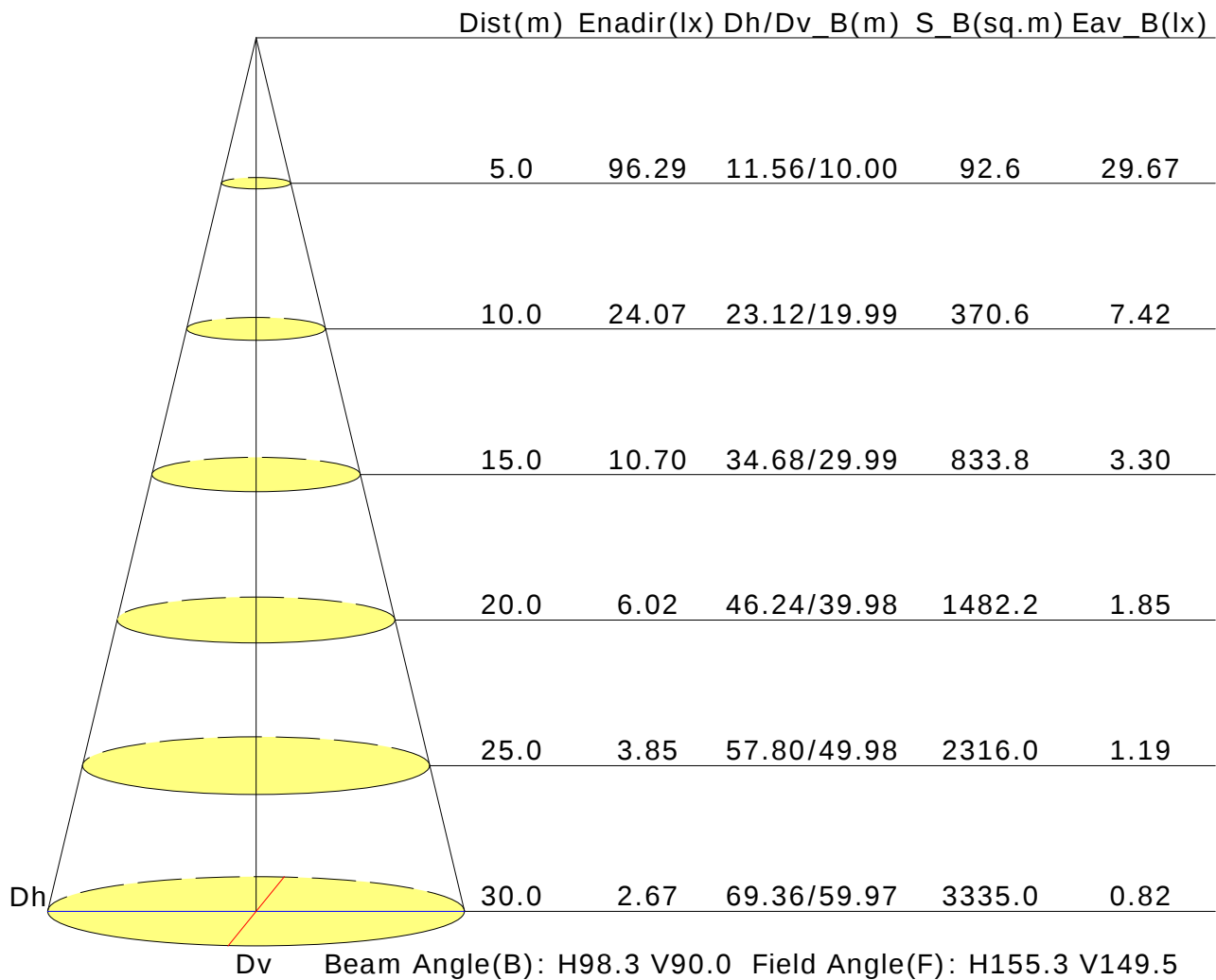
Test Device: LSG-1800B

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	19.3	20.6	19.6	20.8	21.1	20.0	21.2	20.3	21.5	21.7
3H	20.1	21.2	20.4	21.5	21.8	20.9	22.1	21.3	22.4	22.7
4H	20.3	21.4	20.7	21.7	22.0	21.4	22.5	21.7	22.8	23.1
6H	20.5	21.5	20.8	21.8	22.1	21.7	22.7	22.0	23.0	23.3
8H	20.5	21.5	20.9	21.8	22.2	21.8	22.8	22.1	23.1	23.4
12H	20.5	21.5	20.9	21.8	22.2	21.8	22.8	22.2	23.1	23.5
X=4H Y=2H	19.7	20.8	20.0	21.0	21.3	20.2	21.3	20.6	21.6	21.9
3H	20.6	21.5	21.0	21.9	22.2	21.3	22.3	21.7	22.6	23.0
4H	20.9	21.8	21.3	22.1	22.5	21.8	22.7	22.2	23.0	23.4
6H	21.2	21.9	21.6	22.3	22.7	22.2	23.0	22.7	23.4	23.8
8H	21.3	21.9	21.7	22.3	22.8	22.4	23.1	22.8	23.5	23.9
12H	21.3	21.9	21.7	22.3	22.8	22.4	23.1	22.9	23.5	23.9
X=8H Y=4H	21.1	21.7	21.5	22.2	22.6	21.9	22.6	22.4	23.0	23.4
6H	21.4	21.9	21.9	22.4	22.9	22.4	22.9	22.8	23.4	23.8
8H	21.5	22.0	22.0	22.5	22.9	22.5	23.0	23.0	23.5	24.0
12H	21.6	22.0	22.1	22.5	23.0	22.7	23.1	23.2	23.6	24.1
X=12H Y=4H	21.1	21.7	21.5	22.1	22.5	21.9	22.5	22.4	22.9	23.4
6H	21.4	21.9	21.9	22.4	22.9	22.4	22.9	22.9	23.3	23.8
8H	21.5	22.0	22.0	22.4	23.0	22.6	23.0	23.1	23.5	24.0
Variations with the observer position at spacings:										
S=1.0H	+0.3/-0.5					+0.3/-0.4				
S=1.5H	+0.6/-1.1					+0.7/-0.8				
S=2.0H	+1.2/-1.8					+1.5/-1.6				

Calculate in accordance with CIE Pub.117. The table is revised with 5609lm ($8\log(F/F_0) = 6.0$).

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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	0.62	0.72	0.79	0.84	0.90	0.95	0.98	1.02	1.05	
	0.30		0.55	0.65	0.72	0.77	0.85	0.90	0.94	0.99	1.02	
	0.20		0.50	0.60	0.67	0.73	0.80	0.86	0.90	0.95	0.99	
0.50	0.50	0.20	0.61	0.70	0.77	0.81	0.87	0.92	0.94	0.98	1.01	
	0.30		0.54	0.64	0.71	0.76	0.83	0.87	0.91	0.95	0.98	
	0.20		0.49	0.59	0.66	0.71	0.79	0.84	0.87	0.92	0.96	
0.30	0.50	0.20	0.59	0.68	0.74	0.79	0.84	0.88	0.91	0.94	0.97	
	0.30		0.53	0.63	0.69	0.74	0.80	0.85	0.88	0.92	0.95	
	0.20		0.49	0.59	0.65	0.70	0.77	0.82	0.85	0.90	0.93	
0.00	0.00	0.00	0.47	0.56	0.63	0.67	0.74	0.78	0.81	0.85	0.88	
Rating:45W 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	0.91	0.75	0.63	0.55	0.44	0.36	0.31	0.24	0.20	
	0.30		0.76	0.64	0.55	0.49	0.40	0.33	0.29	0.23	0.19	
	0.20		0.65	0.56	0.49	0.44	0.36	0.31	0.27	0.21	0.18	
0.50	0.50	0.20	0.88	0.72	0.60	0.52	0.42	0.38	0.29	0.23	0.18	
	0.30		0.74	0.62	0.53	0.47	0.38	0.32	0.27	0.21	0.18	
	0.20		0.65	0.55	0.48	0.43	0.35	0.30	0.26	0.20	0.17	
0.30	0.50	0.20	0.85	0.69	0.58	0.50	0.40	0.33	0.28	0.21	0.18	
	0.30		0.73	0.60	0.52	0.45	0.37	0.31	0.26	0.20	0.17	
	0.20		0.64	0.54	0.47	0.42	0.34	0.29	0.25	0.20	0.16	
0.00	0.00	0.00	0.53	0.44	0.37	0.33	0.26	0.22	0.19	0.15	0.12	
Rating:45W 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	0.16	0.17	0.18	0.19	0.20	0.20	0.21	0.22	0.22
	0.30		0.10	0.11	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	0.17
0.50	0.50	0.20	0.15	0.17	0.18	0.18	0.19	0.20	0.20	0.21	0.21
	0.30		0.10	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	0.15	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	0.16	0.18	0.18
	0.20		0.05	0.07	0.08	0.10	0.11	0.13	0.14	0.15	0.16
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rating:45W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											