

Report No.: 1

Test Time: 10.02.2020 20:07

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FL 60 LED 34W 5000K opal 1-10

Luminous Length (mm): 1500

Luminous Width (mm): 60

Luminous Height (mm): 70

Voltage: 221.8 V

Current: 0.159 A

Power: 34.86 W

Power Factor: 0.986

Photometric Results

CIE Class: Direct

Measurement Flux: 4232.9 lm

Downward Ratio: 99%

Total Rated Lamp Lumens: 4232.9 lm

Efficiency: 100%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 166.7, 161.6, 163.1, 163.1

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 111.1, 106.7, 108.8, 108.8

Luminaire Efficacy Rating (LER): 121.48

Central Intensity: 1507.85 cd

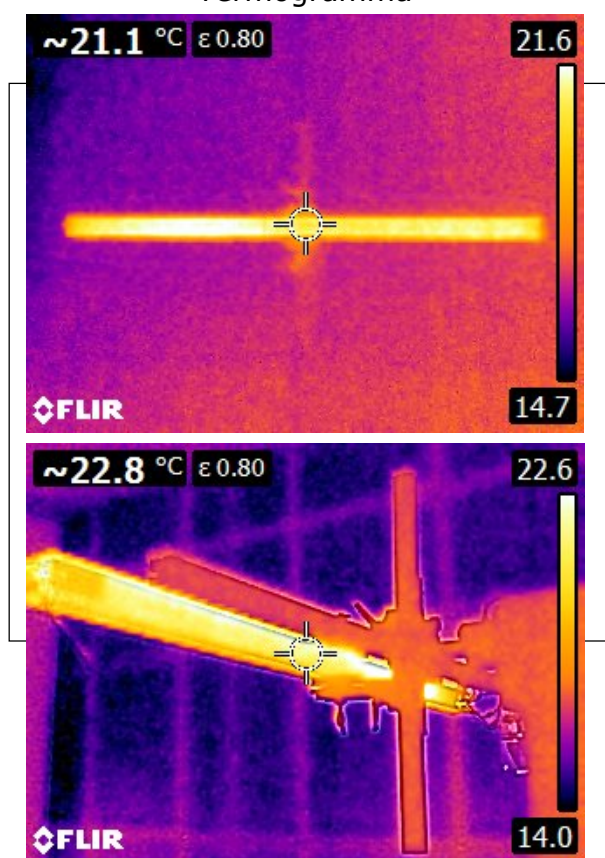
Max. Intensity: 1508.27 cd

Pos of Max. Intensity: H22.5 V0

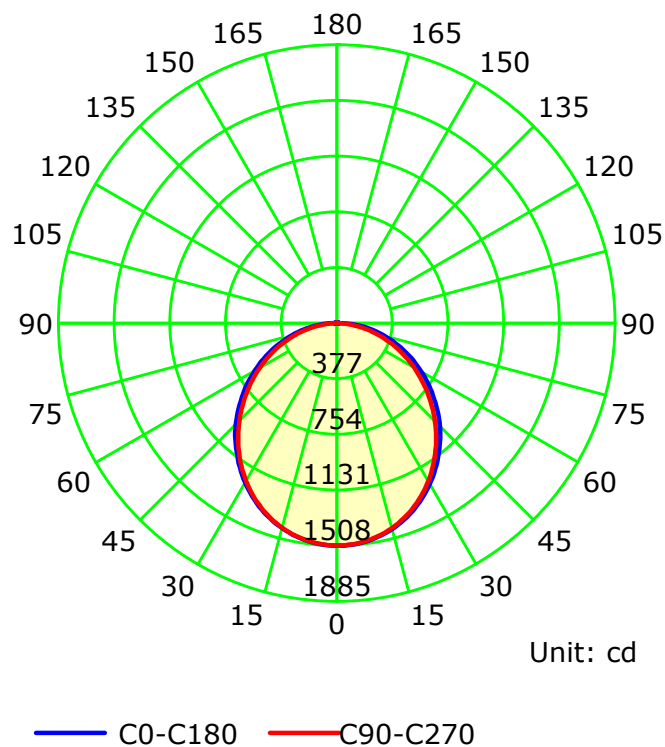
S/MH(C0/C180): 1.24

S/MH(C90/C270): 1.22

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

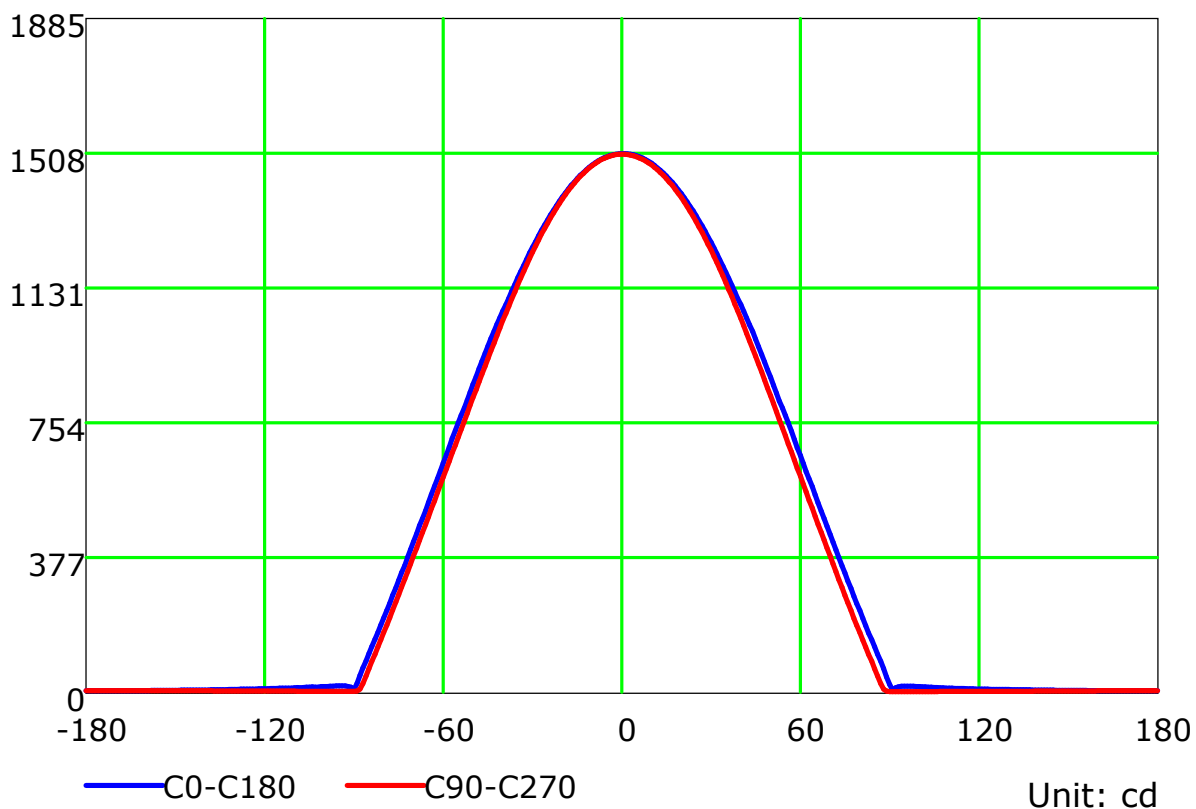
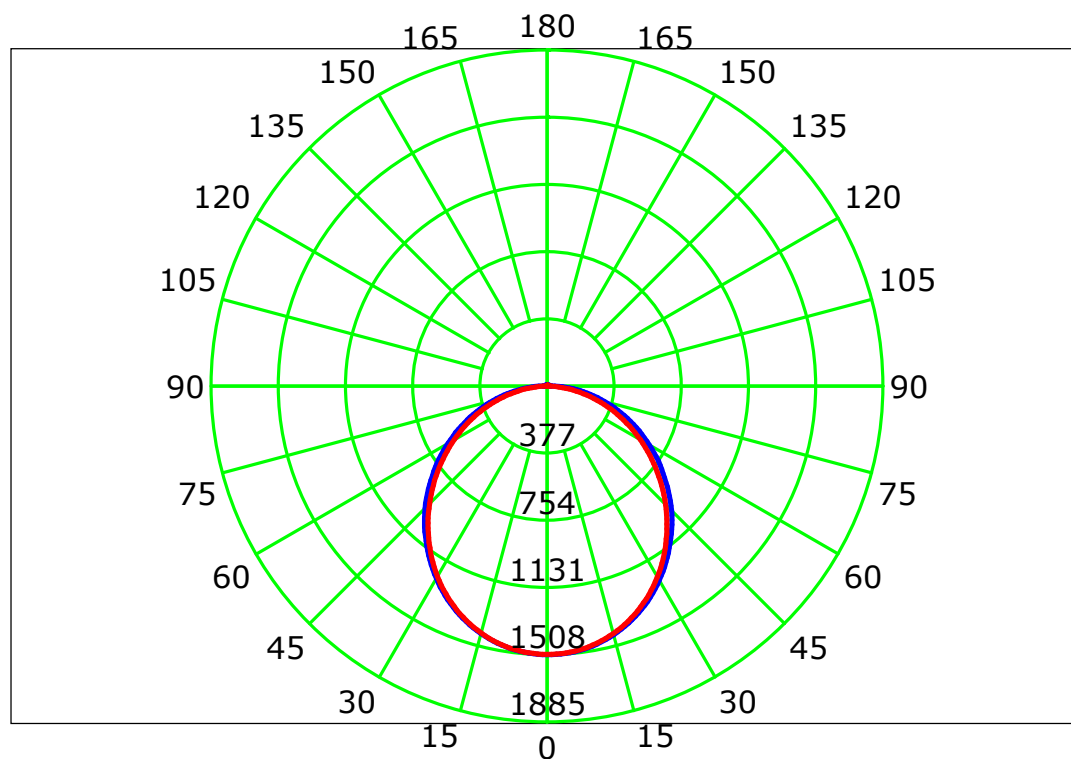
Test Device: LSG-1800B

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

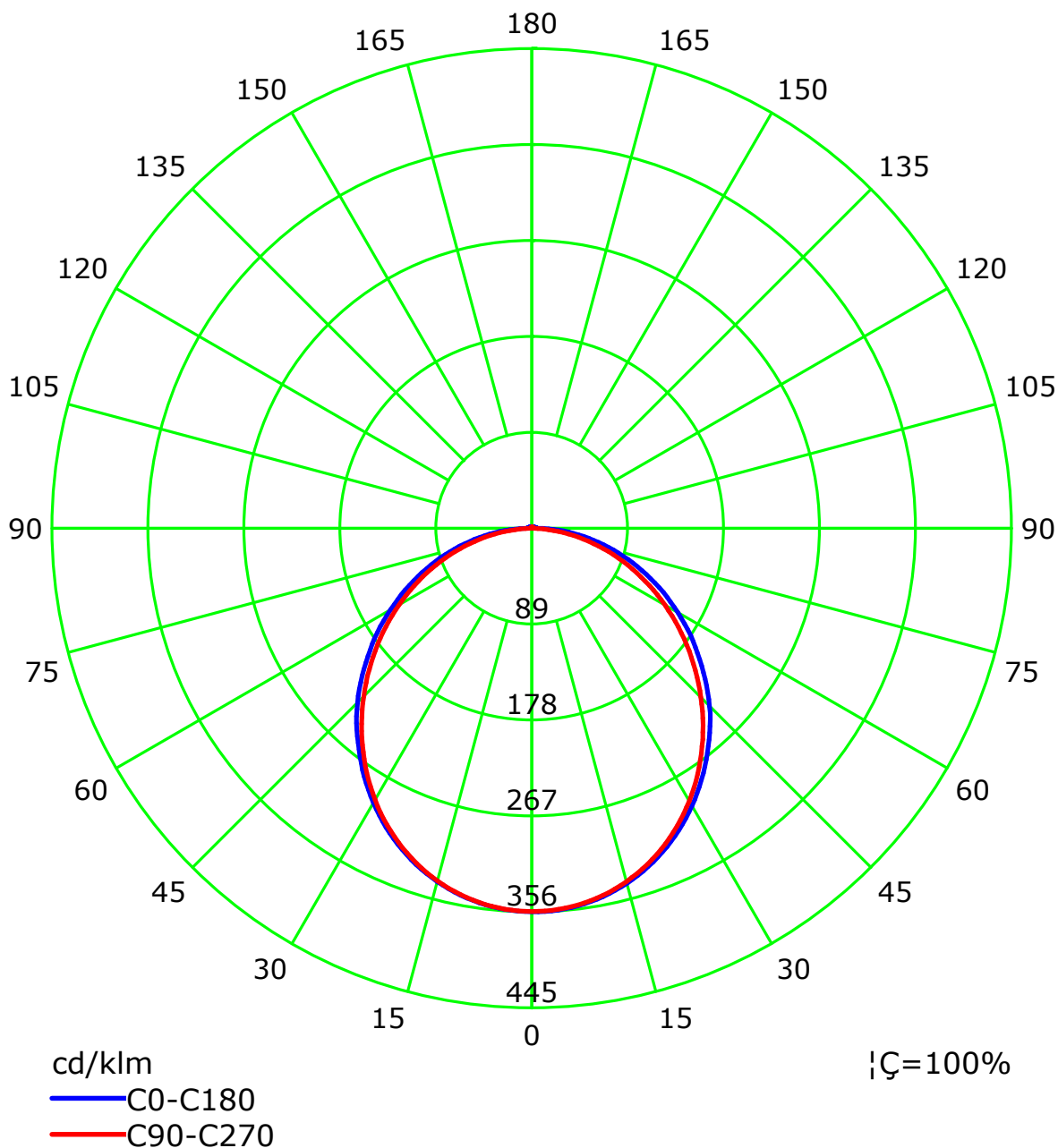
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Luminous Intensity Distribution Curve(cd/klm)



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

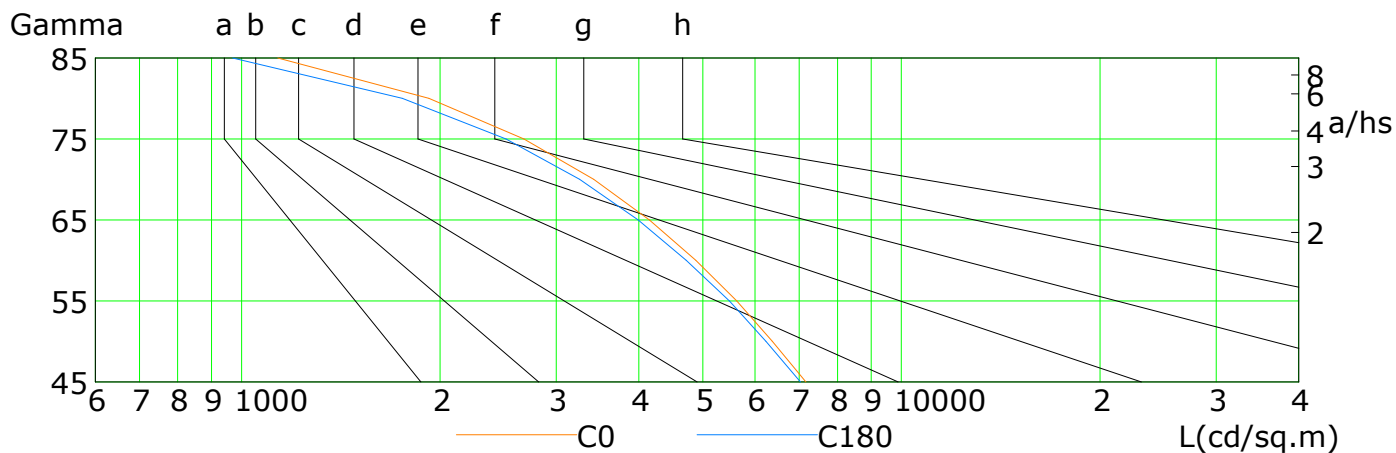
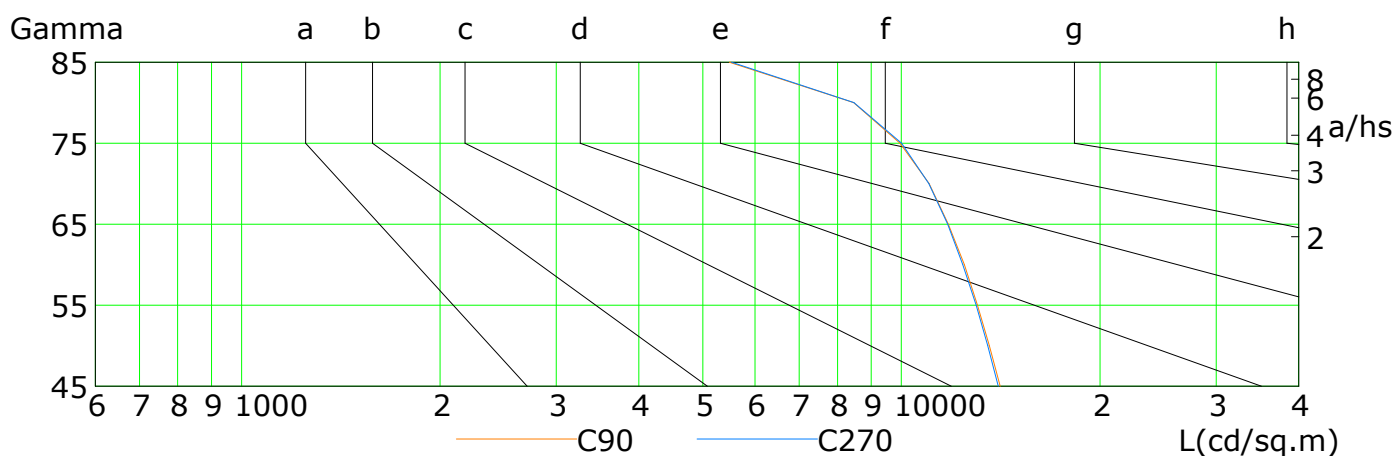
Humidity:

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	7165	6375	5630	4878	4150	3417	2680	1923	1135
C90	14122	13589	13047	12459	11780	11011	9951	8464	5489
C180	7029	6231	5484	4719	3989	3254	2516	1752	969
C270	14025	13512	12977	12391	11750	11009	10009	8475	5533

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

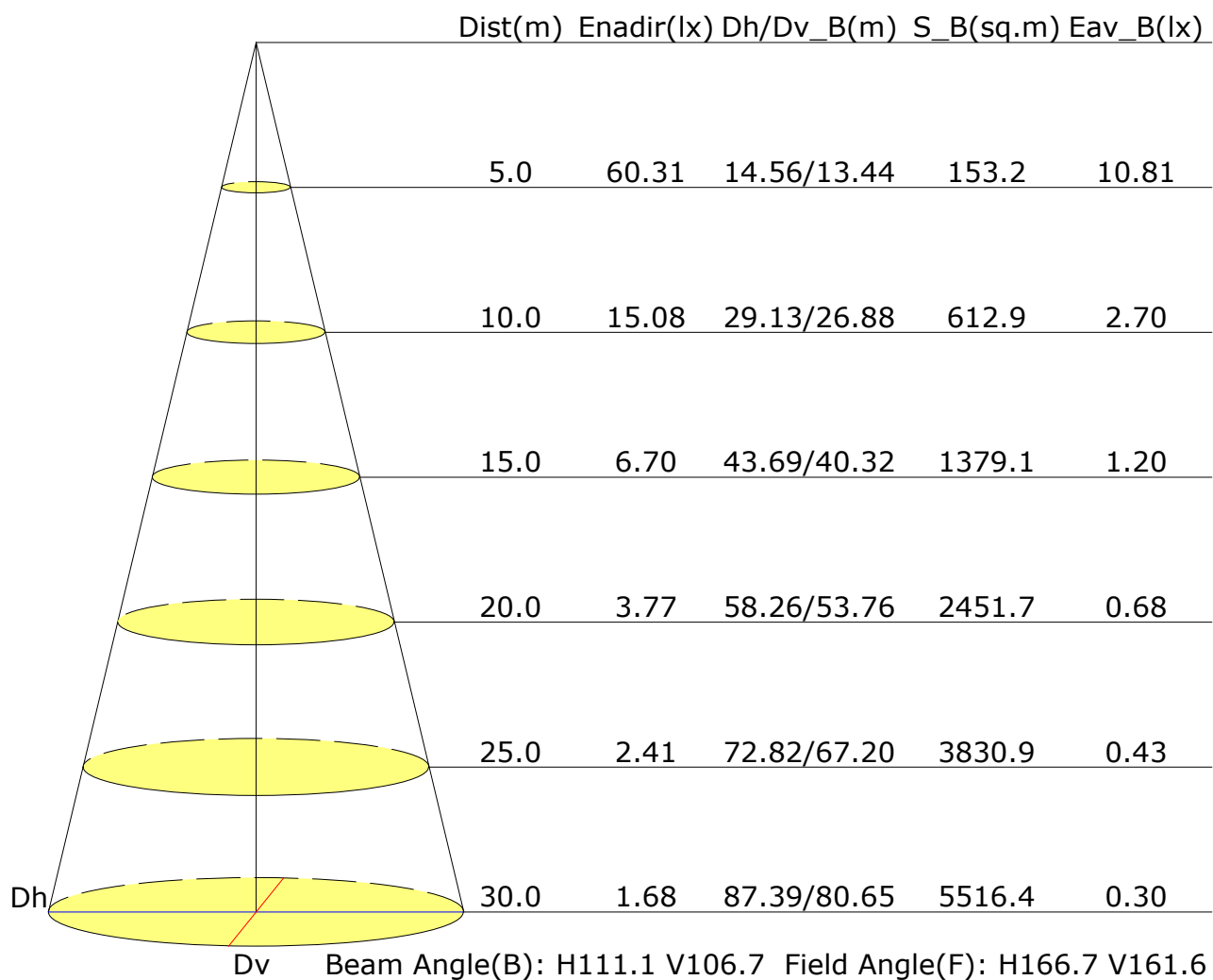
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Illuminance at a Distance



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	18.7	20.1	19.0	20.4	20.6	20.1	21.5	20.4	21.7	22.0
3H	19.9	21.2	20.3	21.5	21.8	21.6	22.9	21.9	23.1	23.4
4H	20.4	21.5	20.7	21.9	22.2	22.2	23.4	22.6	23.7	24.0
6H	20.7	21.8	21.0	22.1	22.4	22.6	23.7	23.0	24.1	24.4
8H	20.7	21.8	21.1	22.2	22.5	22.8	23.8	23.2	24.2	24.5
12H	20.8	21.8	21.2	22.2	22.5	22.8	23.9	23.2	24.2	24.6
X=4H Y=2H	19.3	20.5	19.7	20.8	21.1	20.4	21.6	20.8	21.9	22.3
3H	20.7	21.7	21.1	22.1	22.4	22.1	23.1	22.5	23.4	23.8
4H	21.2	22.2	21.7	22.5	22.9	22.8	23.7	23.2	24.1	24.5
6H	21.6	22.5	22.1	22.9	23.3	23.3	24.1	23.7	24.5	24.9
8H	21.8	22.5	22.2	22.9	23.4	23.5	24.2	23.9	24.6	25.1
12H	21.8	22.5	22.3	23.0	23.4	23.6	24.2	24.0	24.7	25.1
X=8H Y=4H	21.5	22.2	21.9	22.6	23.1	22.9	23.6	23.3	24.0	24.5
6H	22.0	22.6	22.5	23.0	23.5	23.5	24.1	24.0	24.5	25.0
8H	22.2	22.7	22.7	23.2	23.7	23.7	24.2	24.2	24.7	25.2
12H	22.3	22.8	22.8	23.2	23.8	23.8	24.3	24.3	24.8	25.3
X=12H Y=4H	21.5	22.2	21.9	22.6	23.1	22.9	23.5	23.3	24.0	24.4
6H	22.0	22.6	22.5	23.0	23.5	23.5	24.0	24.0	24.5	25.0
8H	22.2	22.7	22.7	23.2	23.7	23.7	24.2	24.2	24.7	25.2
Variations with the observer position at spacings:										
S=1.0H	+0.2/-0.2					+0.1/-0.2				
S=1.5H	+0.4/-0.6					+0.5/-0.6				
S=2.0H	+0.6/-1.2					+1.0/-1.2				

Calculate in accordance with CIE Pub.117. The table is revised with 4233lm ($8\log(F/F_0) = 5.0$).

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 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)

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	0.67	0.74	0.79	0.87	0.92	0.95	1.00	1.03	
	0.30		0.49	0.59	0.66	0.72	0.80	0.86	0.90	0.96	0.99	
	0.20		0.43	0.53	0.61	0.67	0.75	0.81	0.86	0.92	0.96	
0.50	0.50	0.20	0.55	0.64	0.71	0.76	0.83	0.88	0.91	0.96	0.98	
	0.30		0.48	0.58	0.65	0.70	0.78	0.83	0.87	0.92	0.95	
	0.20		0.42	0.52	0.60	0.65	0.73	0.79	0.83	0.89	0.93	
0.30	0.50	0.20	0.53	0.62	0.69	0.74	0.80	0.85	0.88	0.92	0.94	
	0.30		0.47	0.57	0.63	0.69	0.76	0.81	0.84	0.89	0.92	
	0.20		0.42	0.52	0.59	0.64	0.72	0.77	0.81	0.86	0.90	
0.00	0.00	0.00	0.40	0.49	0.56	0.61	0.68	0.73	0.77	0.82	0.85	
Rating:35W 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	1.00	0.83	0.71	0.62	0.49	0.41	0.35	0.27	0.22	
	0.30		0.83	0.71	0.62	0.55	0.45	0.38	0.33	0.26	0.21	
	0.20		0.72	0.62	0.55	0.49	0.41	0.35	0.30	0.24	0.20	
0.50	0.50	0.20	0.96	0.80	0.68	0.59	0.47	0.43	0.34	0.26	0.21	
	0.30		0.82	0.69	0.60	0.53	0.43	0.36	0.31	0.25	0.20	
	0.20		0.71	0.61	0.54	0.48	0.40	0.34	0.30	0.23	0.20	
0.30	0.50	0.20	0.93	0.76	0.65	0.57	0.45	0.37	0.32	0.25	0.20	
	0.30		0.80	0.67	0.58	0.51	0.42	0.35	0.30	0.24	0.20	
	0.20		0.70	0.60	0.53	0.47	0.39	0.33	0.29	0.23	0.19	
0.00	0.00	0.00	0.60	0.50	0.43	0.38	0.31	0.26	0.23	0.18	0.15	
Rating:35W 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	0.21	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	0.21	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	0.10	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:35W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												