

Report No.:

Test Time: 06.05.2020 18:27

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FL 58 L 200LED 55W Refond 3N 4000K 104x90 rp

Number of Lamps: 1

Lumens per Lamp: 7840.4 lm

Luminous Length (mm): 1500 mm

Luminous Width (mm): 75 mm

Luminous Height (mm): 60 mm

Voltage: 229.0 V

Current: 0.227 A

Power: 51.30 W

Power Factor: 0.985

Photometric Results

CIE Class: Direct

Measurement Flux: 7839.7 lm

Downward Ratio: 99.54%

Total Rated Lamp Lumens: 7840.4 lm

Efficiency: 99.99%

Upward Ratio: 0.45%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 160.1, 128.3, 138.1, 138.2

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 98.3, 87.4, 86.9, 86.7

Luminaire Efficacy Rating (LER): 152.87

Central Intensity: 3686.41 cd

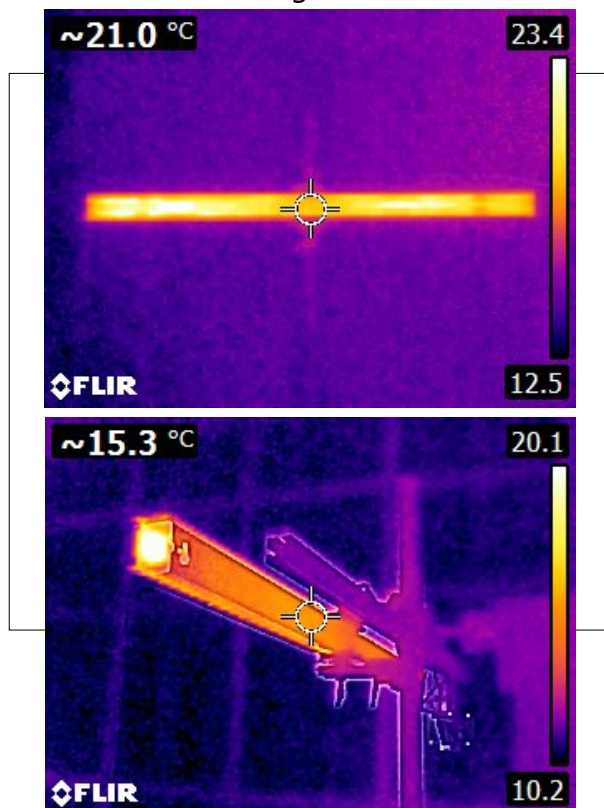
Max. Intensity: 3719.14 cd

Pos of Max. Intensity: H135 V2

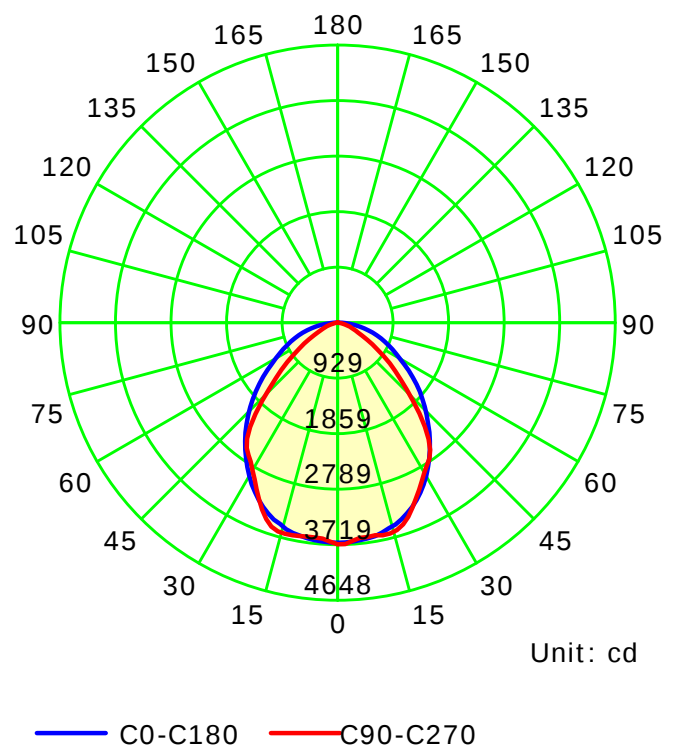
S/MH(C0/C180): 1.20

S/MH(C90/C270): 1.16

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

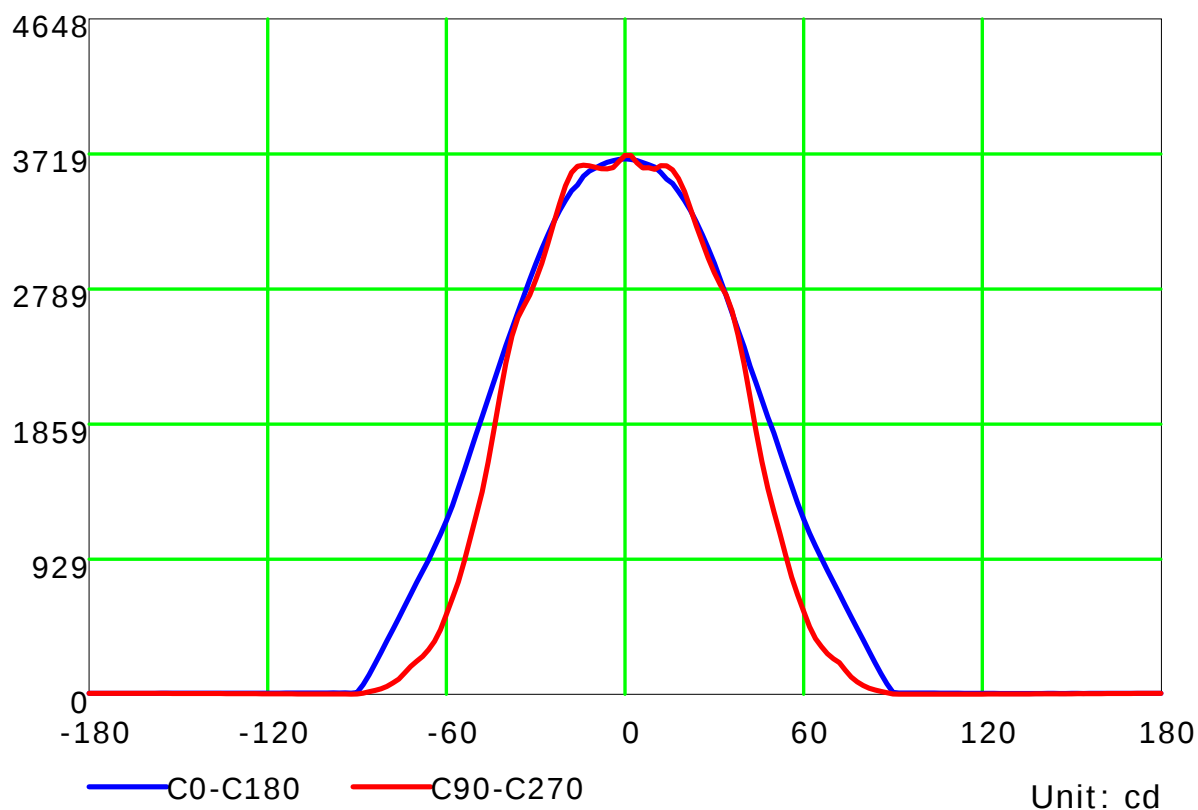
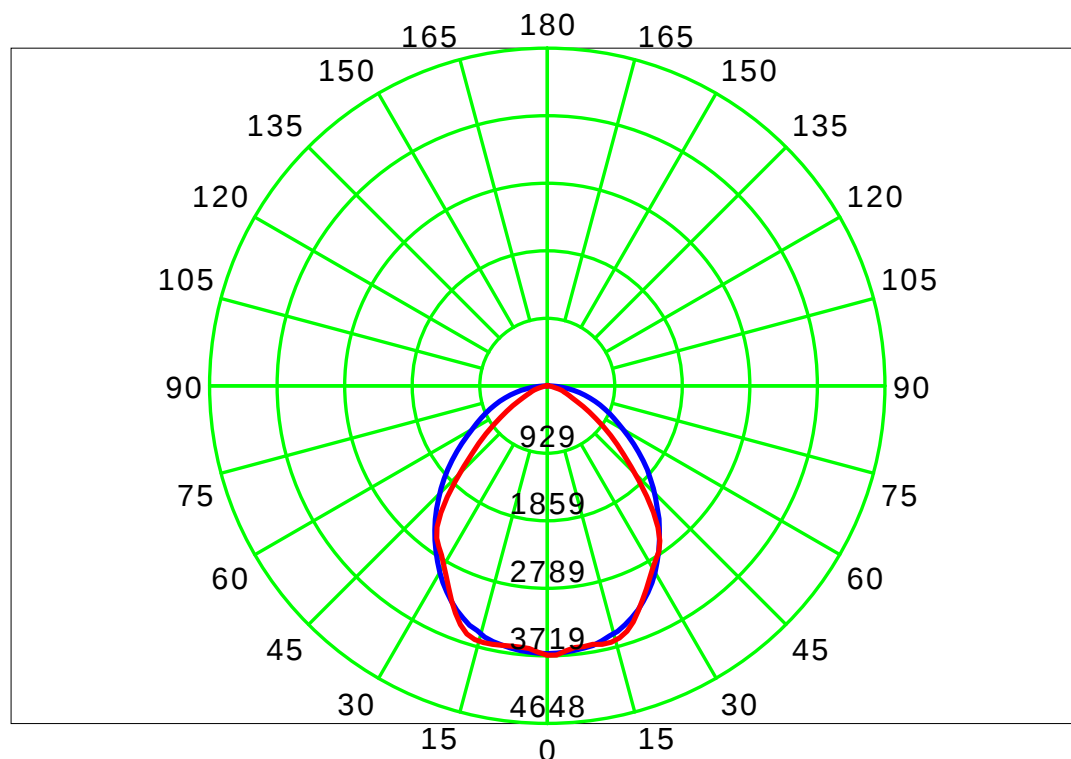
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

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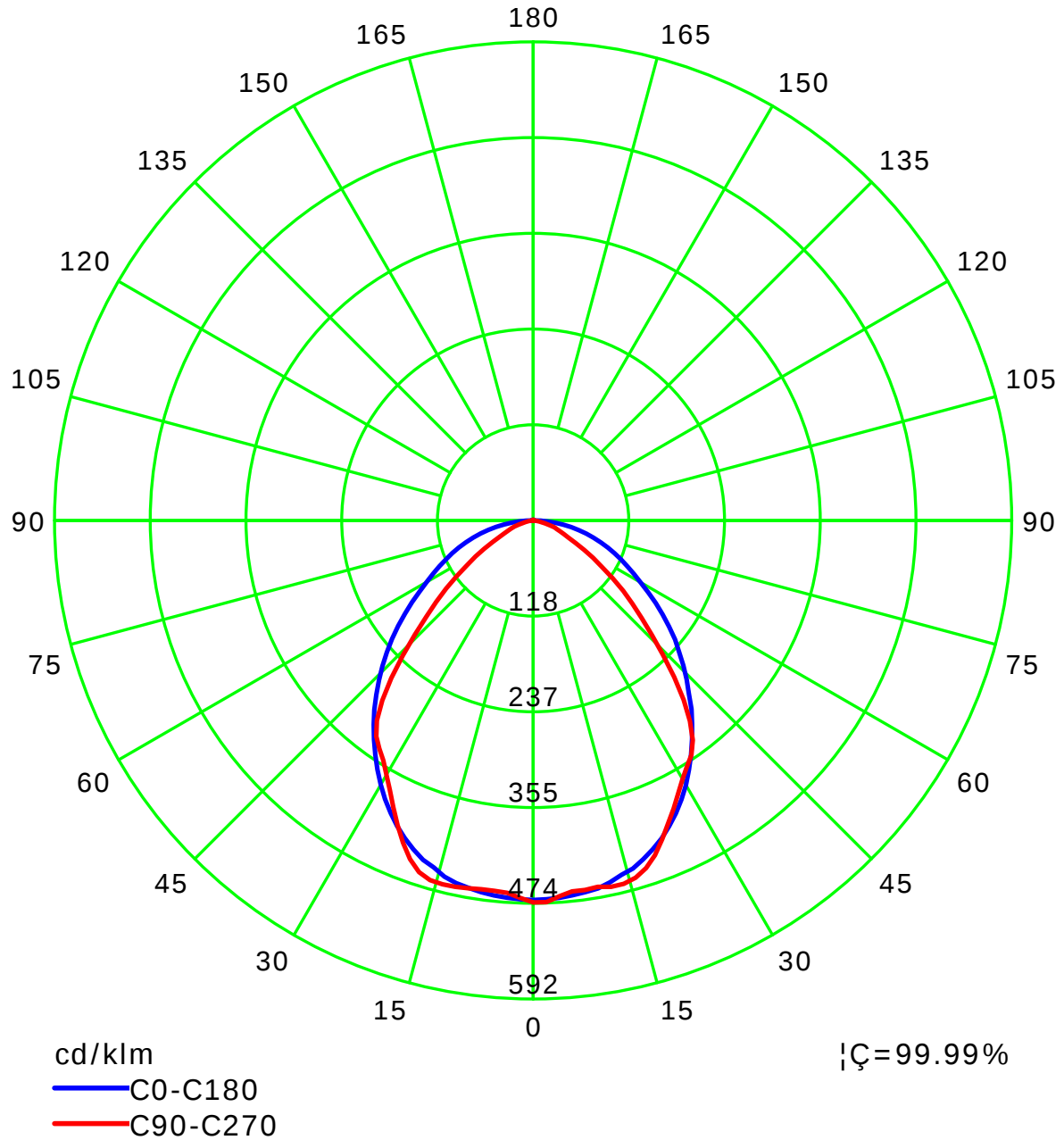
Test Device: LSG-1800B

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:

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Test Device: LSG-1800B

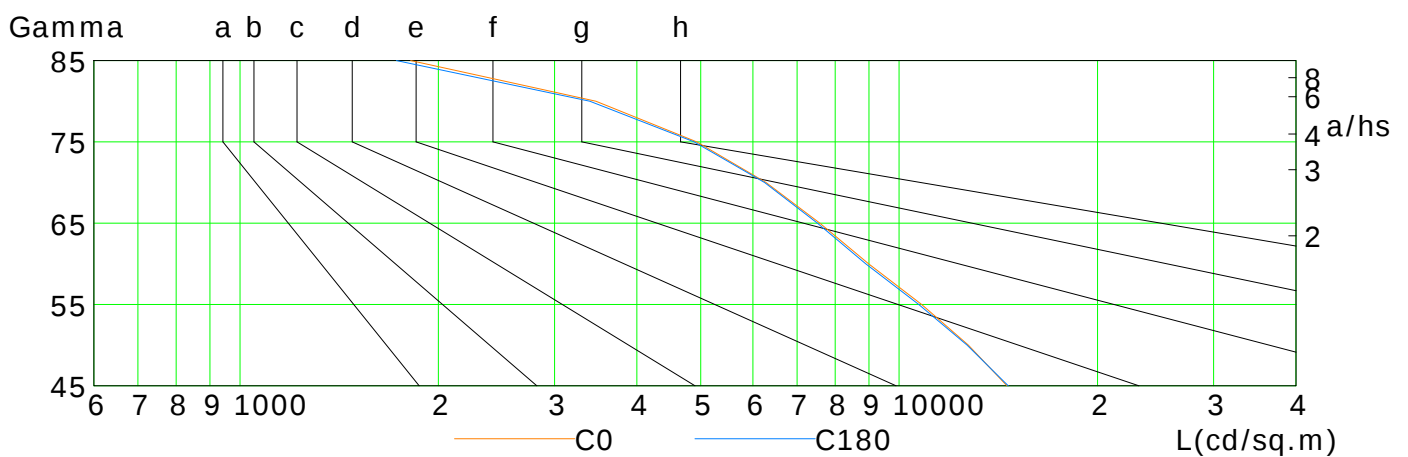
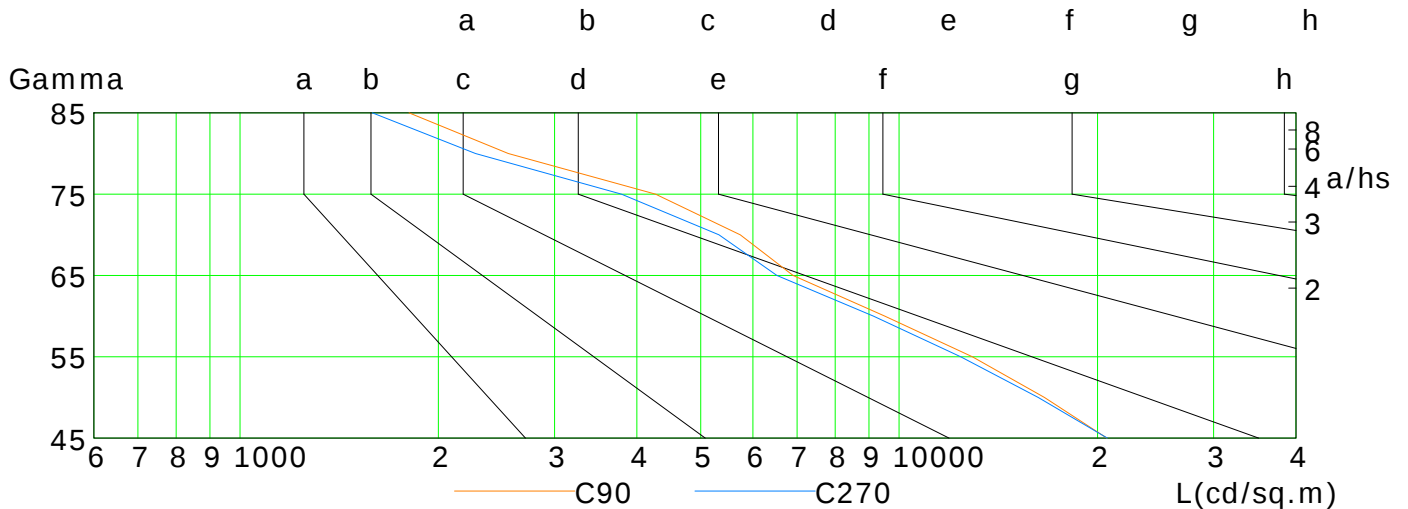
Distance: 12.677 m

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



L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	14573	12737	10817	8989	7580	6281	4931	3466	1815
C90	20659	16612	12916	9512	6905	5739	4271	2553	1805
C180	14639	12676	10709	8901	7515	6249	4886	3393	1727
C270	20691	16252	12398	9141	6523	5329	3790	2276	1588

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Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.0

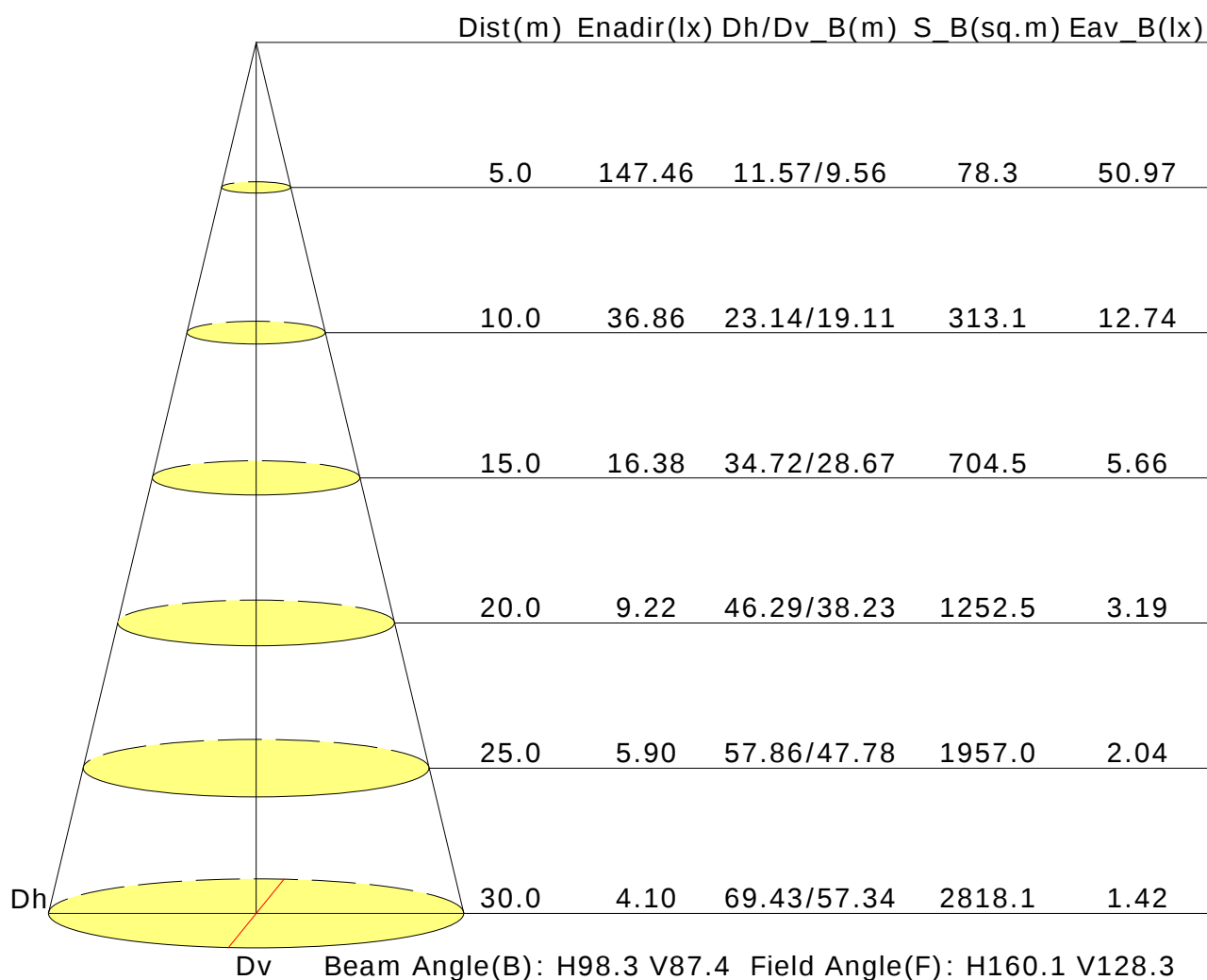
Test Device: LSG-1800B

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	20.3	21.5	20.6	21.7	22.0	20.0	21.2	20.2	21.4	21.7
3H	21.3	22.4	21.7	22.7	23.0	20.2	21.4	20.6	21.6	21.9
4H	21.8	22.8	22.1	23.1	23.4	20.3	21.4	20.7	21.7	22.0
6H	22.1	23.0	22.4	23.3	23.7	20.3	21.3	20.7	21.6	21.9
8H	22.1	23.1	22.5	23.4	23.7	20.3	21.2	20.7	21.6	21.9
12H	22.2	23.1	22.6	23.4	23.7	20.3	21.2	20.7	21.5	21.8
X=4H Y=2H	20.5	21.5	20.8	21.8	22.1	20.2	21.2	20.5	21.5	21.8
3H	21.6	22.5	22.0	22.9	23.2	20.5	21.4	20.9	21.8	22.1
4H	22.2	23.0	22.6	23.3	23.7	20.7	21.5	21.1	21.8	22.2
6H	22.6	23.3	23.0	23.6	24.1	20.7	21.4	21.1	21.8	22.2
8H	22.7	23.3	23.1	23.7	24.2	20.7	21.3	21.1	21.7	22.2
12H	22.7	23.3	23.2	23.7	24.2	20.7	21.2	21.1	21.7	22.1
X=8H Y=4H	22.1	22.8	22.6	23.2	23.6	20.7	21.4	21.1	21.8	22.2
6H	22.6	23.1	23.1	23.6	24.0	20.8	21.3	21.2	21.7	22.2
8H	22.7	23.2	23.2	23.7	24.2	20.8	21.2	21.2	21.7	22.2
12H	22.8	23.2	23.3	23.7	24.2	20.7	21.1	21.3	21.6	22.1
X=12H Y=4H	22.1	22.7	22.6	23.1	23.6	20.7	21.3	21.2	21.7	22.2
6H	22.6	23.0	23.0	23.5	24.0	20.8	21.2	21.2	21.7	22.2
8H	22.7	23.1	23.2	23.6	24.1	20.8	21.2	21.3	21.6	22.1
Variations with the observer position at spacings:										
S=1.0H	+0.2/-0.4					+0.5/-0.9				
S=1.5H	+0.6/-1.0					+1.7/-2.3				
S=2.0H	+1.4/-1.7					+3.2/-3.9				

Calculate in accordance with CIE Pub.117. The table is revised with 7840lm ($8\log(F/F_0) = 7.2$).

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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	0.65	0.75	0.82	0.86	0.93	0.97	1.00	1.03	1.06	
	0.30		0.58	0.68	0.75	0.80	0.87	0.92	0.95	1.00	1.03	
	0.20		0.54	0.63	0.70	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	1.00	1.02	
	0.30		0.58	0.67	0.74	0.79	0.85	0.89	0.93	0.97	0.99	
	0.20		0.53	0.63	0.70	0.74	0.81	0.86	0.90	0.94	0.97	
0.30	0.50	0.20	0.62	0.71	0.77	0.81	0.87	0.90	0.93	0.96	0.98	
	0.30		0.57	0.66	0.72	0.77	0.83	0.87	0.90	0.94	0.96	
	0.20		0.53	0.62	0.69	0.73	0.80	0.84	0.87	0.92	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	
Rating:51W 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	0.87	0.70	0.59	0.51	0.40	0.33	0.29	0.22	0.18	
	0.30		0.72	0.60	0.52	0.45	0.37	0.31	0.26	0.21	0.17	
	0.20		0.62	0.52	0.46	0.41	0.33	0.28	0.25	0.20	0.16	
0.50	0.50	0.20	0.83	0.67	0.56	0.49	0.38	0.35	0.27	0.21	0.17	
	0.30		0.70	0.58	0.50	0.44	0.35	0.29	0.25	0.20	0.16	
	0.20		0.61	0.51	0.45	0.40	0.32	0.27	0.24	0.19	0.15	
0.30	0.50	0.20	0.81	0.64	0.54	0.46	0.36	0.30	0.25	0.19	0.16	
	0.30		0.69	0.57	0.48	0.42	0.34	0.28	0.24	0.19	0.15	
	0.20		0.60	0.51	0.44	0.39	0.31	0.26	0.23	0.18	0.15	
0.00	0.00	0.00	0.49	0.40	0.34	0.29	0.23	0.19	0.16	0.13	0.10	
Rating:51W 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	0.21	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	0.14	0.15	0.17	0.18	
0.50	0.50	0.20	0.15	0.16	0.17	0.18	0.19	0.19	0.20	0.21	0.21	
	0.30		0.10	0.11	0.12	0.14	0.15	0.16	0.17	0.18	0.19	
	0.20		0.05	0.07	0.09	0.10	0.12	0.13	0.15	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	0.17	0.18	0.18	
	0.20		0.05	0.07	0.09	0.10	0.12	0.13	0.14	0.16	0.17	
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:51W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												