

Report No.:

Test Time: 25.06.2020 12:44

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FL 60/1000 31W 4000K frozen DALI

Luminous Length (mm): 950

Luminous Width (mm): 60

Luminous Height (mm): 70

Voltage: 222.2 V

Current: 0.143 A

Power: 30.67 W

Power Factor: 0.961

Photometric Results

CIE Class: Direct

Total Rated Lamp Lumens: 3840.9 lm

Measurement Flux: 3840.9 lm

Efficiency: 100%

Downward Ratio: 100%

Upward Ratio: 0%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 148.7, 134.0, 141.8, 142.1

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 99.0, 88.8, 93.8, 94.3

Luminaire Efficacy Rating (LER): 125.28

Central Intensity: 1720.21 cd

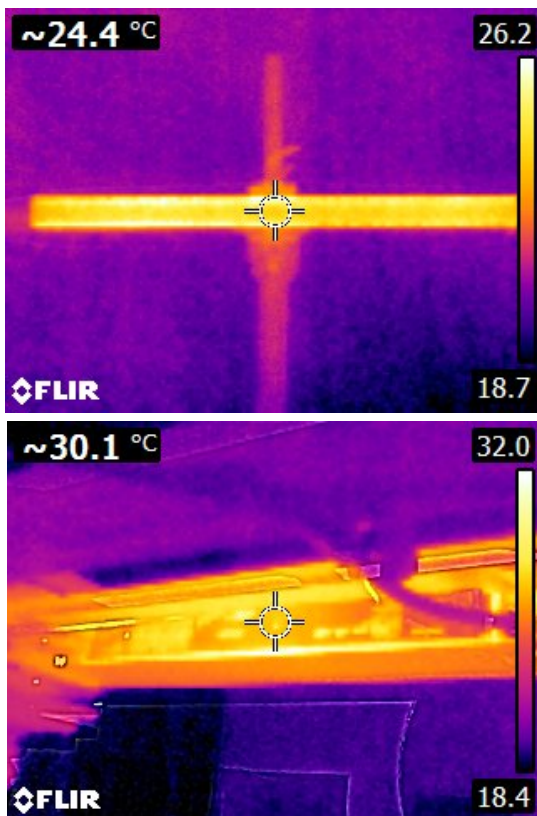
Max. Intensity: 1728.07 cd

Pos of Max. Intensity: H90 V2

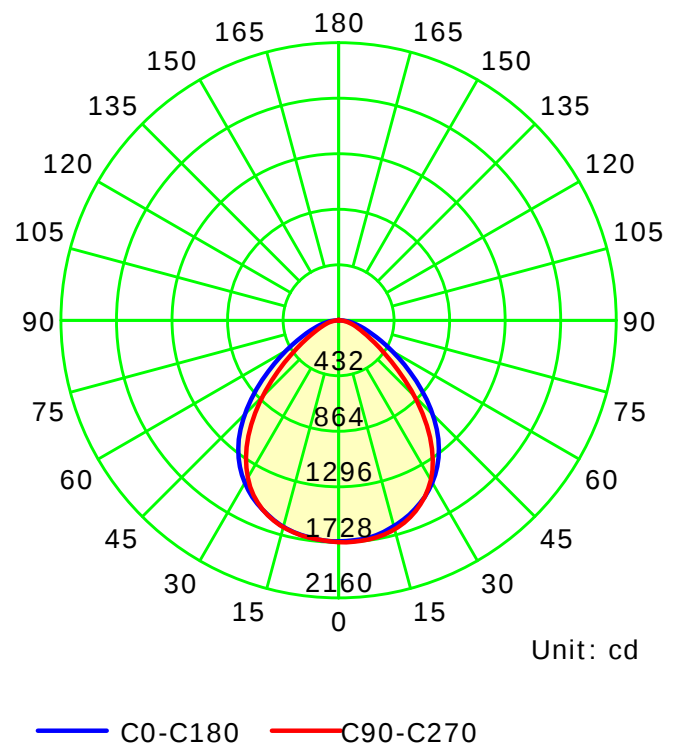
S/MH(C0/C180): 1.26

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 (°):0.0-180.0:2.0

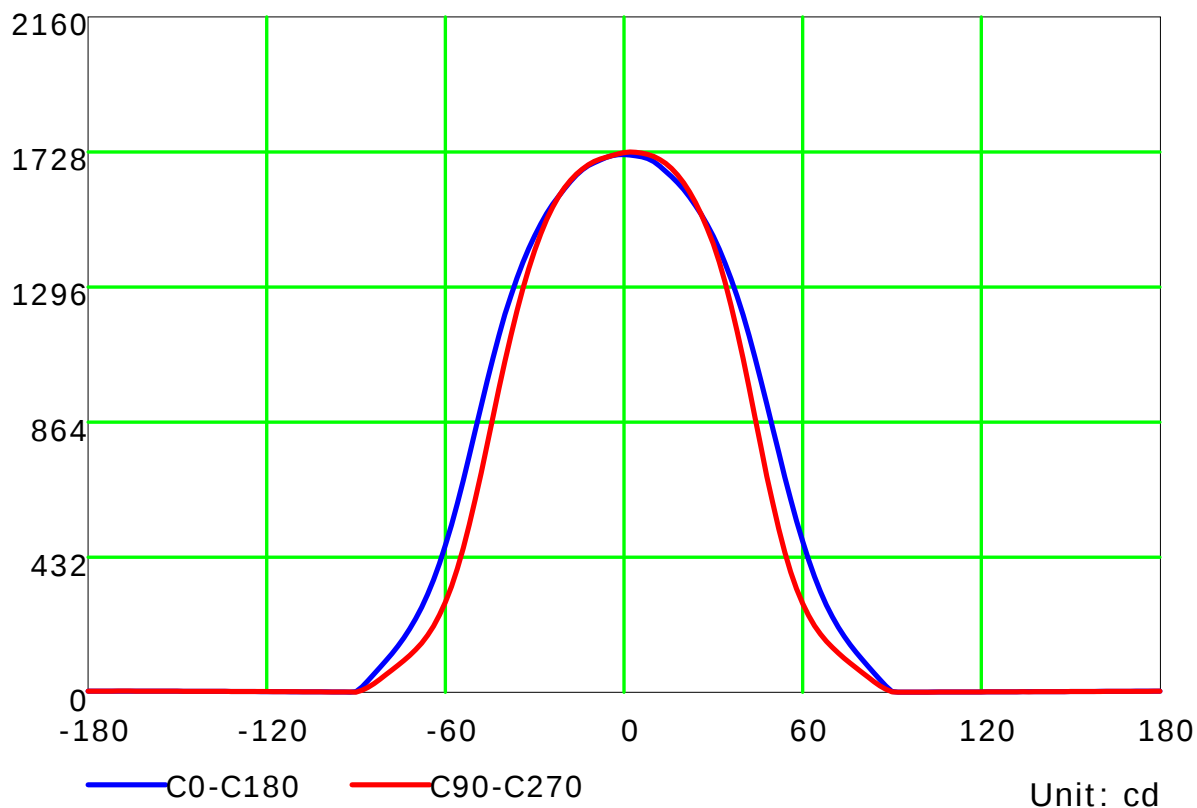
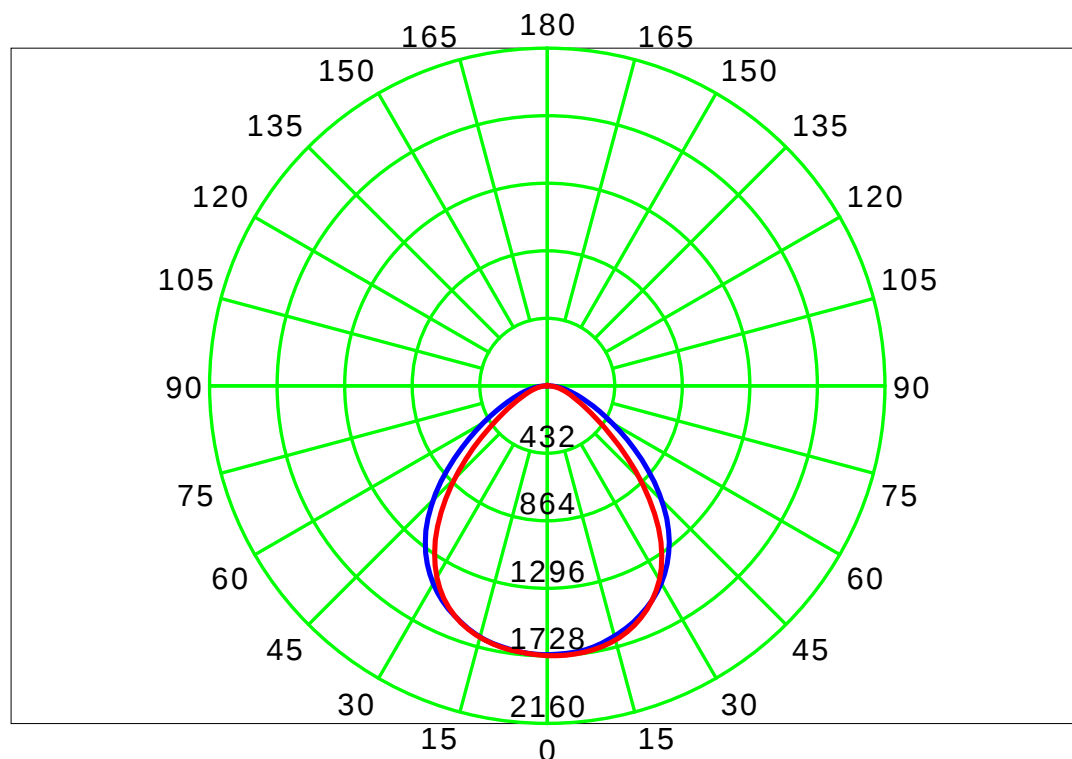
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Luminous Intensity Distribution Curve



Unit: cd

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

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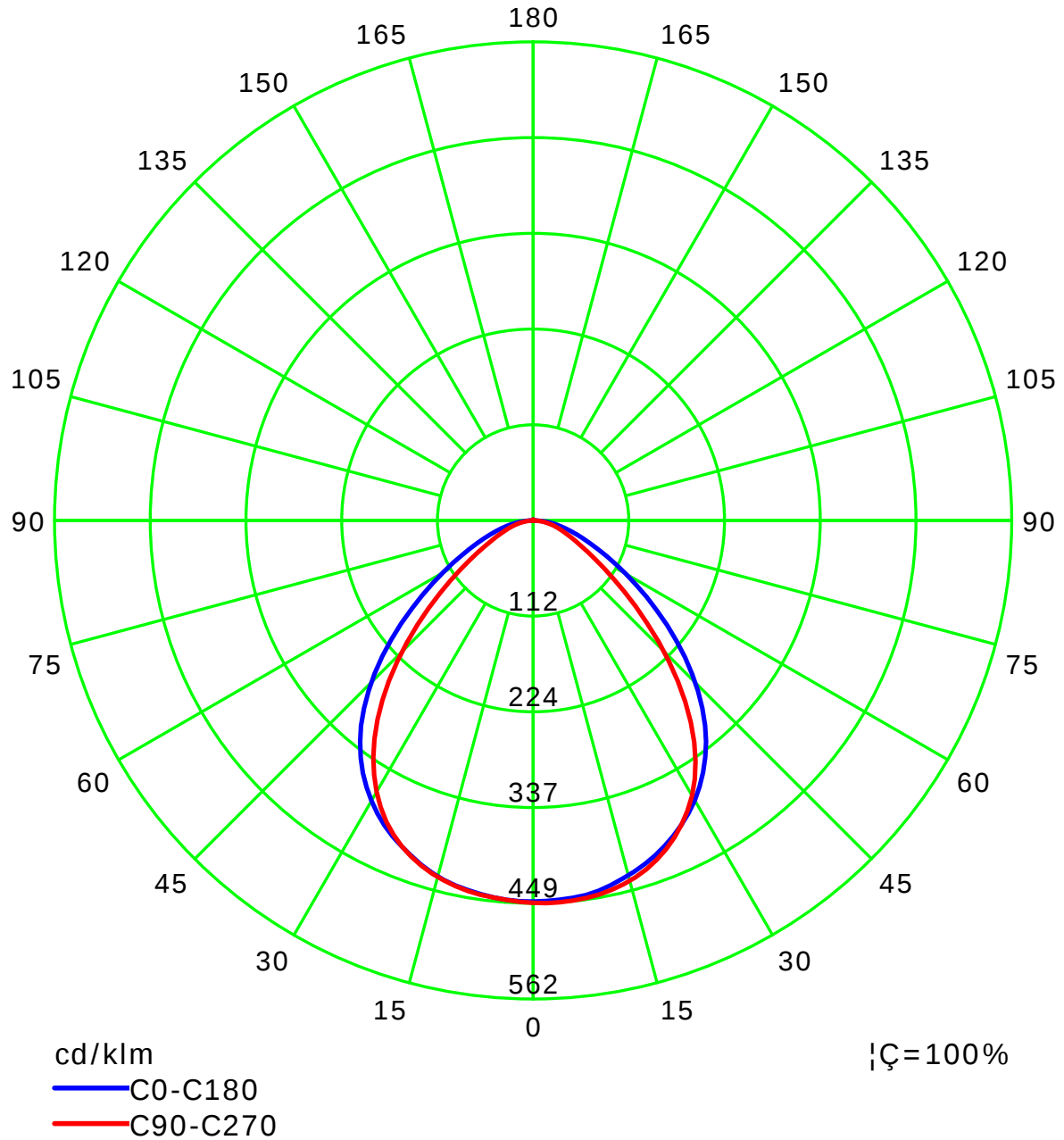
Test Device: LSG-1800B

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

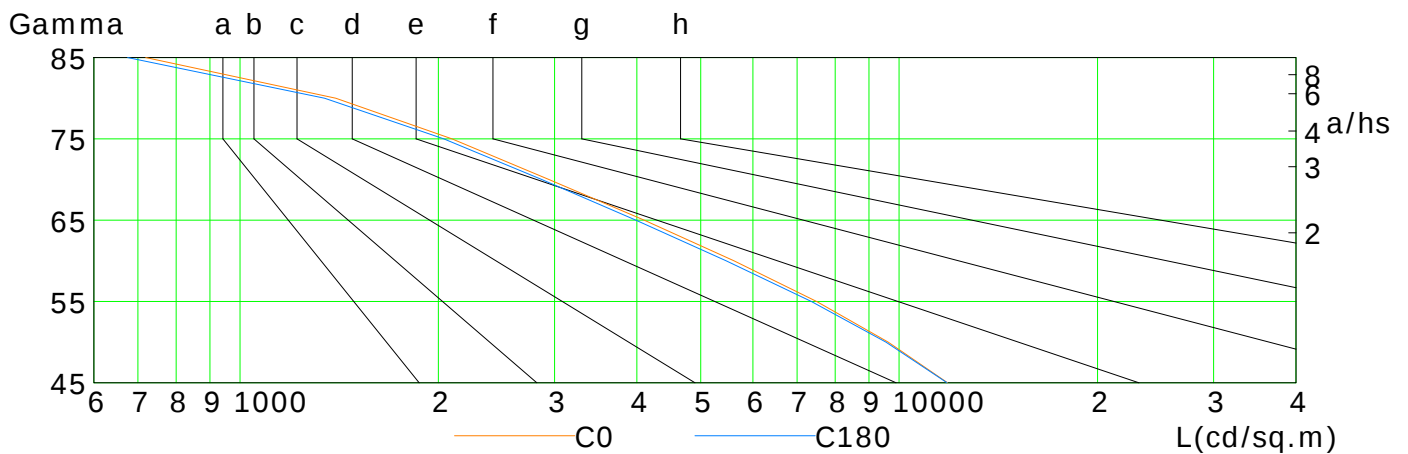
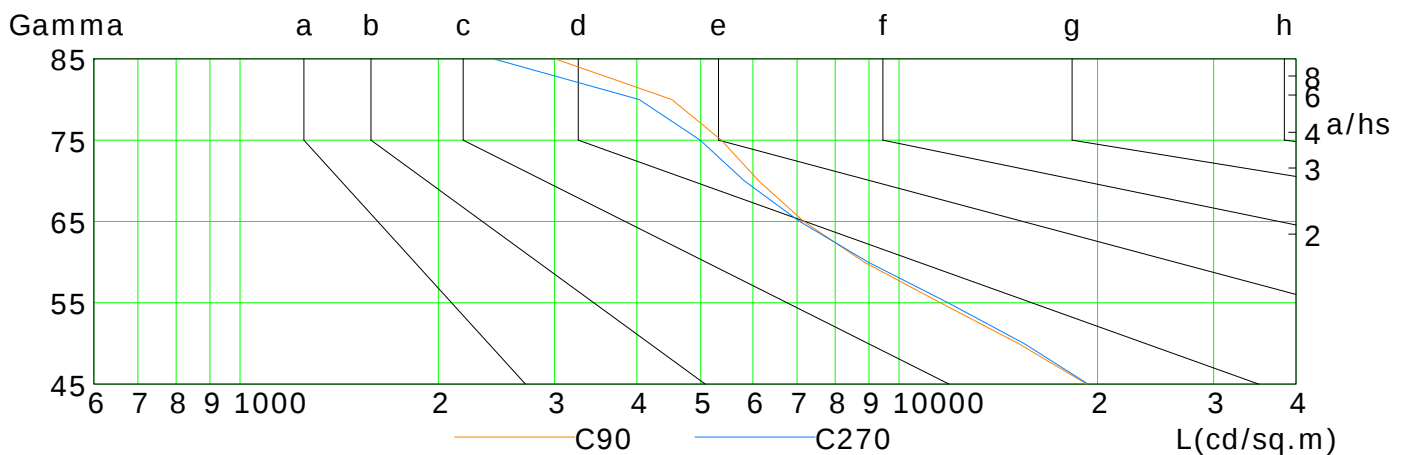
Humidity:

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

a b c d e f g h



L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	11845	9622	7497	5615	4103	2943	2097	1397	719
C90	19257	15165	11547	8851	7167	6120	5373	4519	3006
C180	11823	9549	7357	5465	3987	2869	2037	1343	675
C270	19346	15463	11866	8976	7064	5820	4991	4032	2424

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Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.0

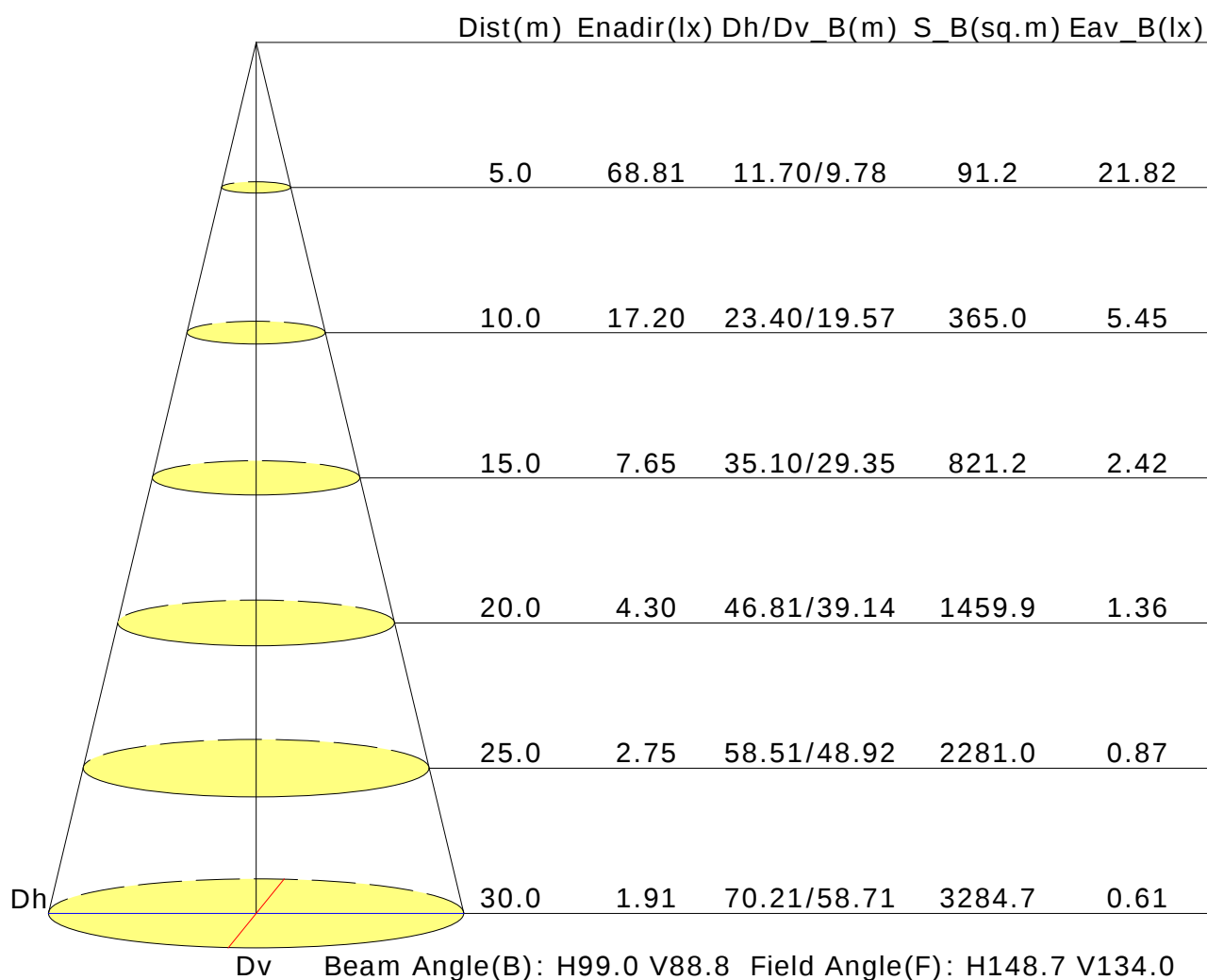
Test Device: LSG-1800B

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	19.6	20.8	19.9	21.1	21.3	19.5	20.7	19.8	21.0	21.2
3H	20.1	21.2	20.4	21.5	21.8	19.9	21.1	20.3	21.3	21.6
4H	20.2	21.3	20.6	21.6	21.9	20.1	21.2	20.5	21.5	21.8
6H	20.3	21.3	20.7	21.6	21.9	20.3	21.2	20.6	21.5	21.9
8H	20.3	21.3	20.7	21.6	21.9	20.3	21.2	20.7	21.6	21.9
12H	20.3	21.2	20.7	21.6	21.9	20.3	21.2	20.7	21.5	21.9
X=4H Y=2H	19.7	20.8	20.1	21.1	21.4	19.7	20.7	20.0	21.0	21.3
3H	20.4	21.3	20.8	21.6	22.0	20.2	21.1	20.6	21.5	21.8
4H	20.6	21.4	21.0	21.8	22.2	20.5	21.3	20.9	21.6	22.0
6H	20.8	21.5	21.2	21.9	22.3	20.7	21.4	21.1	21.8	22.2
8H	20.8	21.5	21.3	21.9	22.3	20.7	21.4	21.2	21.8	22.2
12H	20.8	21.4	21.3	21.8	22.3	20.8	21.3	21.2	21.8	22.2
X=8H Y=4H	20.6	21.3	21.1	21.7	22.1	20.5	21.2	20.9	21.6	22.0
6H	20.9	21.4	21.3	21.8	22.3	20.8	21.3	21.2	21.7	22.2
8H	20.9	21.4	21.4	21.9	22.3	20.9	21.3	21.3	21.8	22.3
12H	21.0	21.4	21.5	21.9	22.4	20.9	21.3	21.4	21.8	22.3
X=12H Y=4H	20.6	21.2	21.1	21.6	22.1	20.5	21.1	20.9	21.5	21.9
6H	20.9	21.3	21.3	21.8	22.3	20.8	21.2	21.2	21.7	22.2
8H	20.9	21.3	21.4	21.8	22.3	20.9	21.3	21.4	21.7	22.2
Variations with the observer position at spacings:										
S=1.0H	+0.5/-0.7					+0.4/-0.8				
S=1.5H	+0.9/-1.6					+1.5/-1.9				
S=2.0H	+1.9/-2.5					+2.7/-3.1				

Calculate in accordance with CIE Pub.117. The table is revised with 3841lm ($8\log(F/F_0) = 4.7$).

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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	0.81	0.86	0.92	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		0.53	0.63	0.70	0.76	0.83	0.88	0.92	0.97	1.00	
0.50	0.50	0.20	0.63	0.73	0.79	0.83	0.89	0.93	0.96	1.00	1.02	
	0.30		0.57	0.67	0.74	0.78	0.85	0.89	0.93	0.97	0.99	
	0.20		0.53	0.62	0.69	0.74	0.81	0.86	0.89	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		0.56	0.66	0.72	0.77	0.83	0.87	0.90	0.94	0.96	
	0.20		0.52	0.62	0.68	0.73	0.80	0.84	0.87	0.91	0.94	
0.00	0.00	0.00	0.50	0.59	0.66	0.70	0.76	0.80	0.83	0.87	0.89	
Rating:31W 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	0.71	0.60	0.52	0.41	0.34	0.29	0.22	0.18	
	0.30		0.73	0.61	0.52	0.46	0.37	0.31	0.27	0.21	0.17	
	0.20		0.63	0.53	0.46	0.41	0.34	0.28	0.25	0.20	0.16	
0.50	0.50	0.20	0.84	0.68	0.57	0.49	0.39	0.35	0.27	0.21	0.17	
	0.30		0.71	0.59	0.50	0.44	0.35	0.29	0.25	0.20	0.16	
	0.20		0.62	0.52	0.45	0.40	0.33	0.27	0.24	0.19	0.16	
0.30	0.50	0.20	0.81	0.65	0.54	0.47	0.37	0.30	0.26	0.20	0.16	
	0.30		0.70	0.57	0.49	0.42	0.34	0.28	0.24	0.19	0.15	
	0.20		0.61	0.51	0.44	0.39	0.32	0.26	0.23	0.18	0.15	
0.00	0.00	0.00	0.50	0.40	0.34	0.30	0.24	0.19	0.17	0.13	0.11	
Rating:31W 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	0.18	0.20	0.20	0.21	0.21	0.22	
	0.30		0.10	0.11	0.13	0.14	0.15	0.17	0.18	0.19	0.20	
	0.20		0.05	0.07	0.09	0.10	0.12	0.14	0.15	0.16	0.18	
0.50	0.50	0.20	0.15	0.16	0.17	0.18	0.19	0.19	0.20	0.20	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	0.09	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	0.17	0.18	
	0.20		0.05	0.07	0.08	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:31W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												