

Report No.:

Test Time: 22.06.2020 14:29

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FL 60/1000 48W 4000K frozen

Luminous Length (mm): 950

Luminous Width (mm): 60

Luminous Height (mm): 70

Voltage: 221.2 V

Current: 0.233 A

Power: 48.80 W

Power Factor: 0.946

Photometric Results

CIE Class: Direct

Measurement Flux: 5872.1 lm

Downward Ratio: 99%

Total Rated Lamp Lumens: 5872.1 lm

Efficiency: 100%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 151.9, 133.6, 142.8, 143.0

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 99.6, 88.5, 94.1, 94.2

Luminaire Efficacy Rating (LER): 120.38

Central Intensity: 2612.45 cd

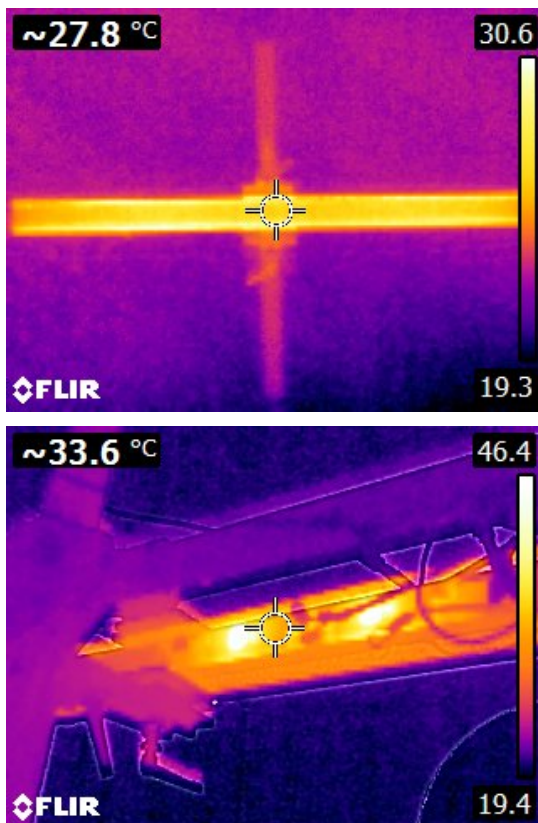
Max. Intensity: 2613.33 cd

Pos of Max. Intensity: H225 V2

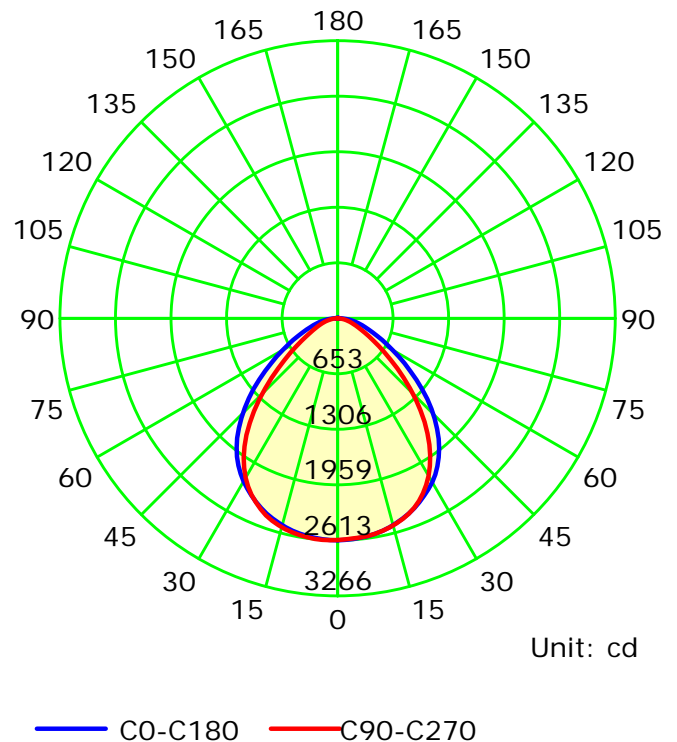
S/MH(C0/C180): 1.26

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

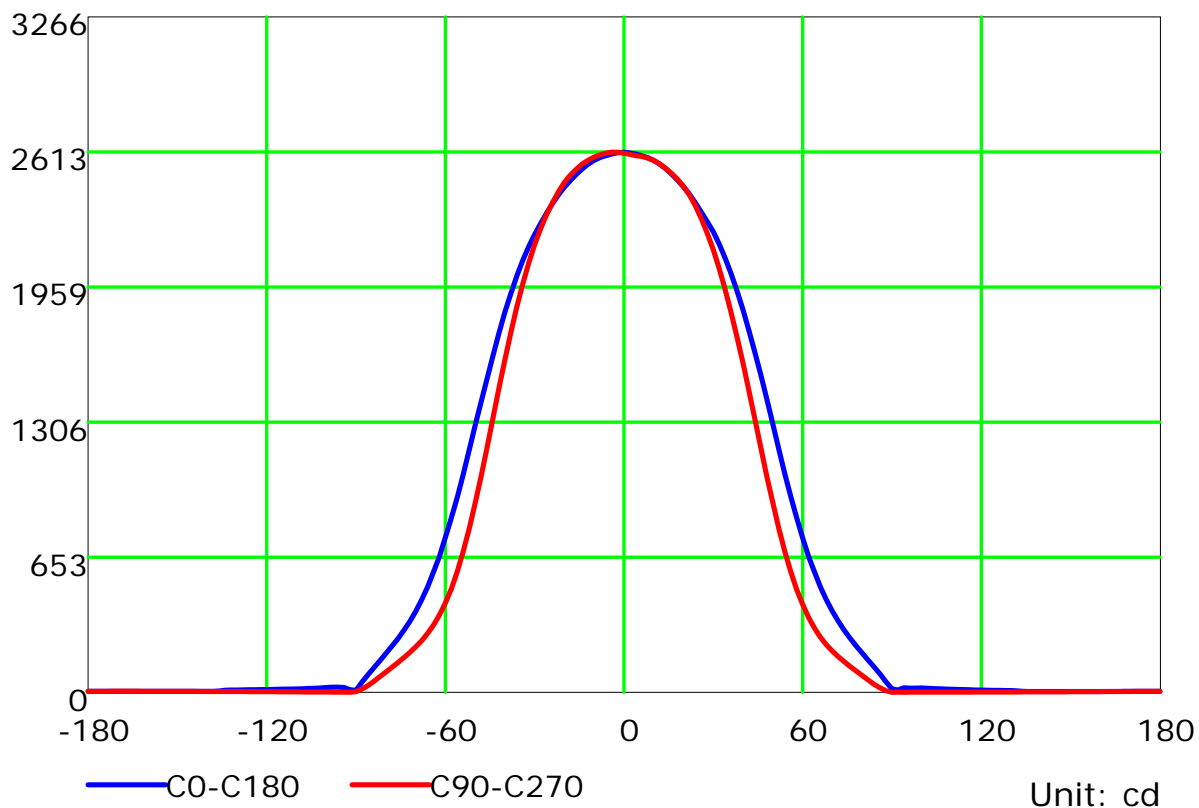
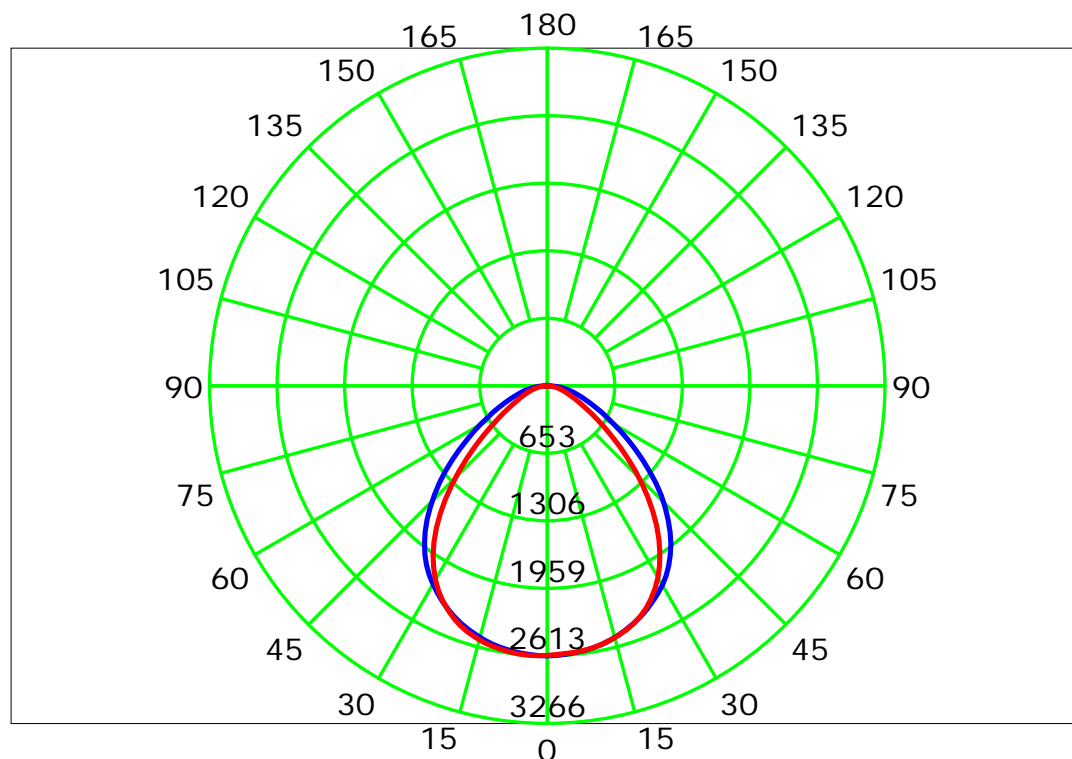
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

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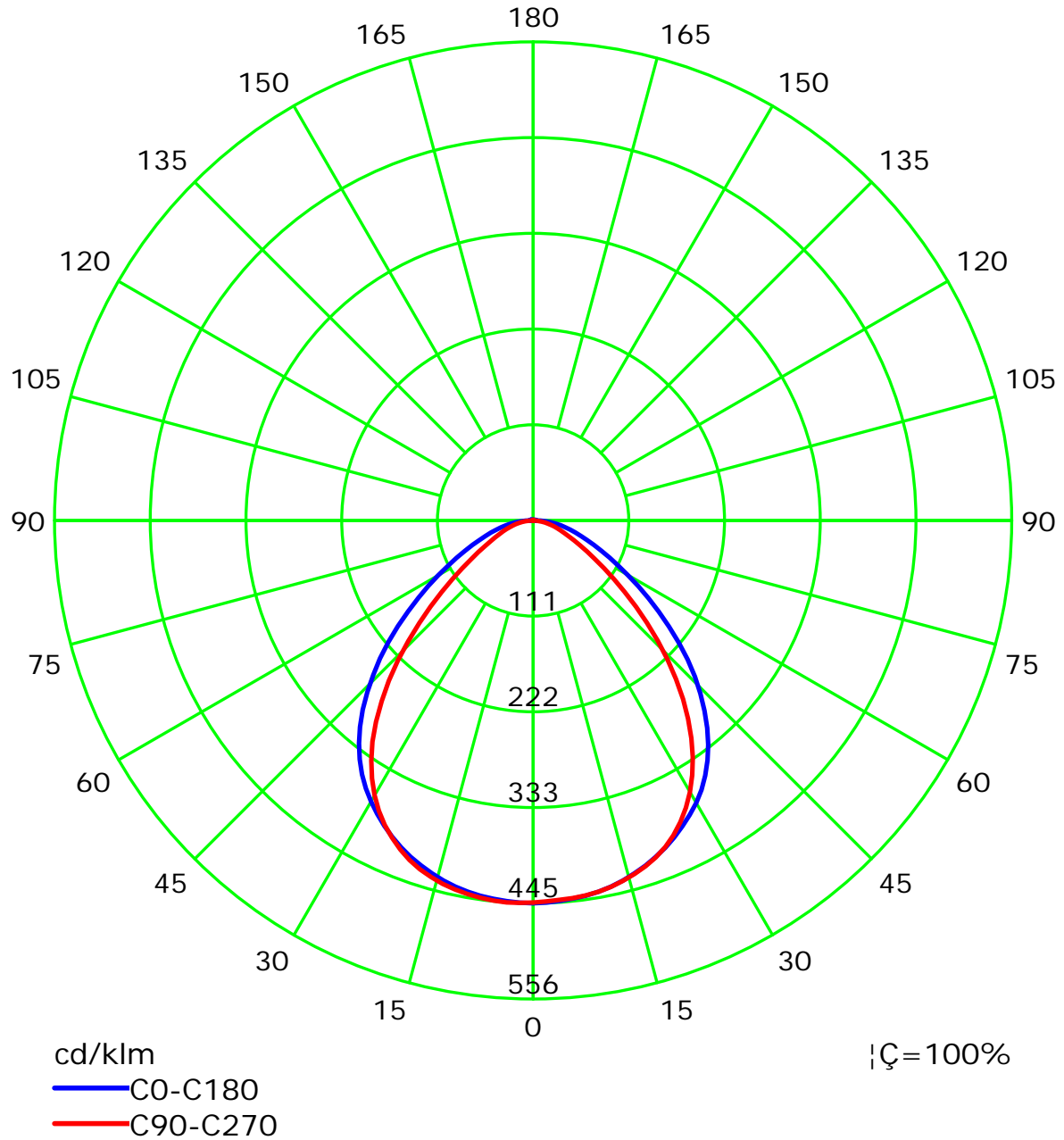
Test Device: LSG-1800B

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

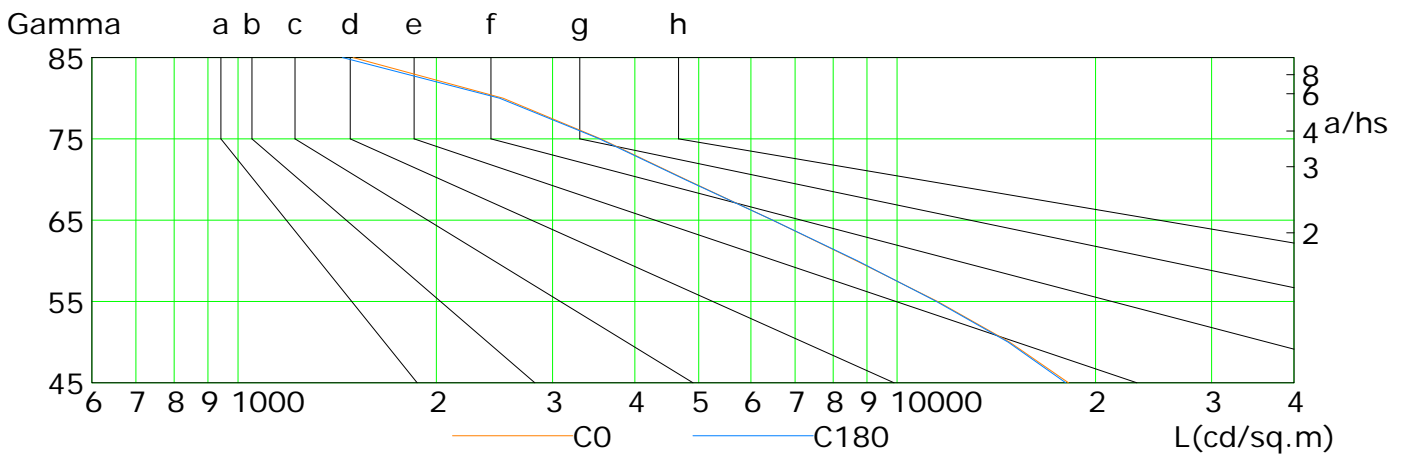
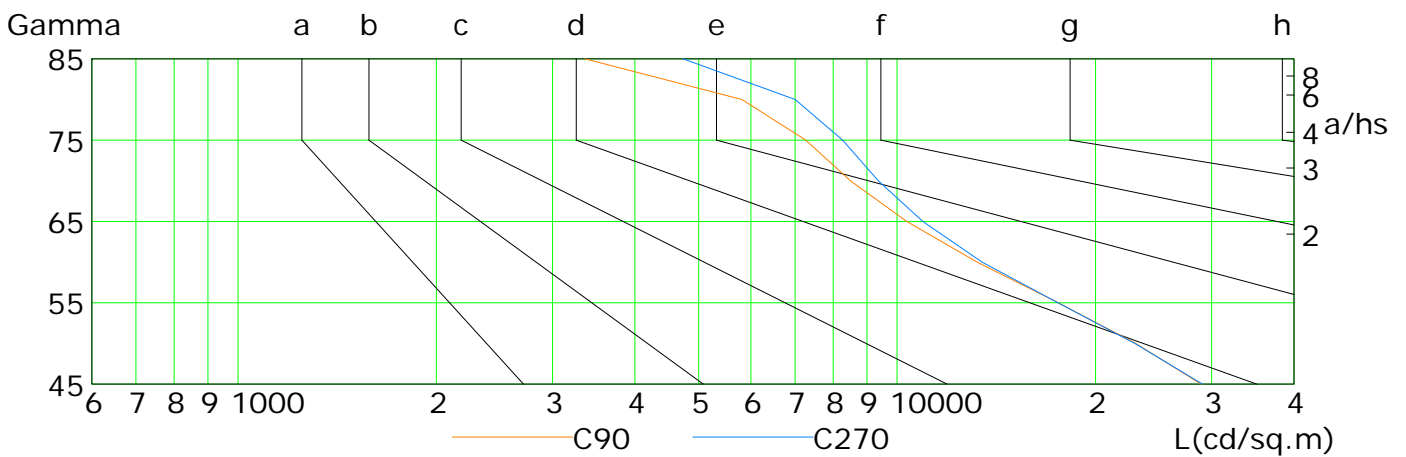
Humidity:

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	18193	14811	11516	8671	6475	4781	3550	2524	1495
C90	28913	23011	17555	13224	10347	8496	7269	5815	3362
C180	18025	14737	11471	8708	6473	4765	3534	2494	1441
C270	29061	22938	17541	13455	10936	9362	8265	7004	4737

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.0

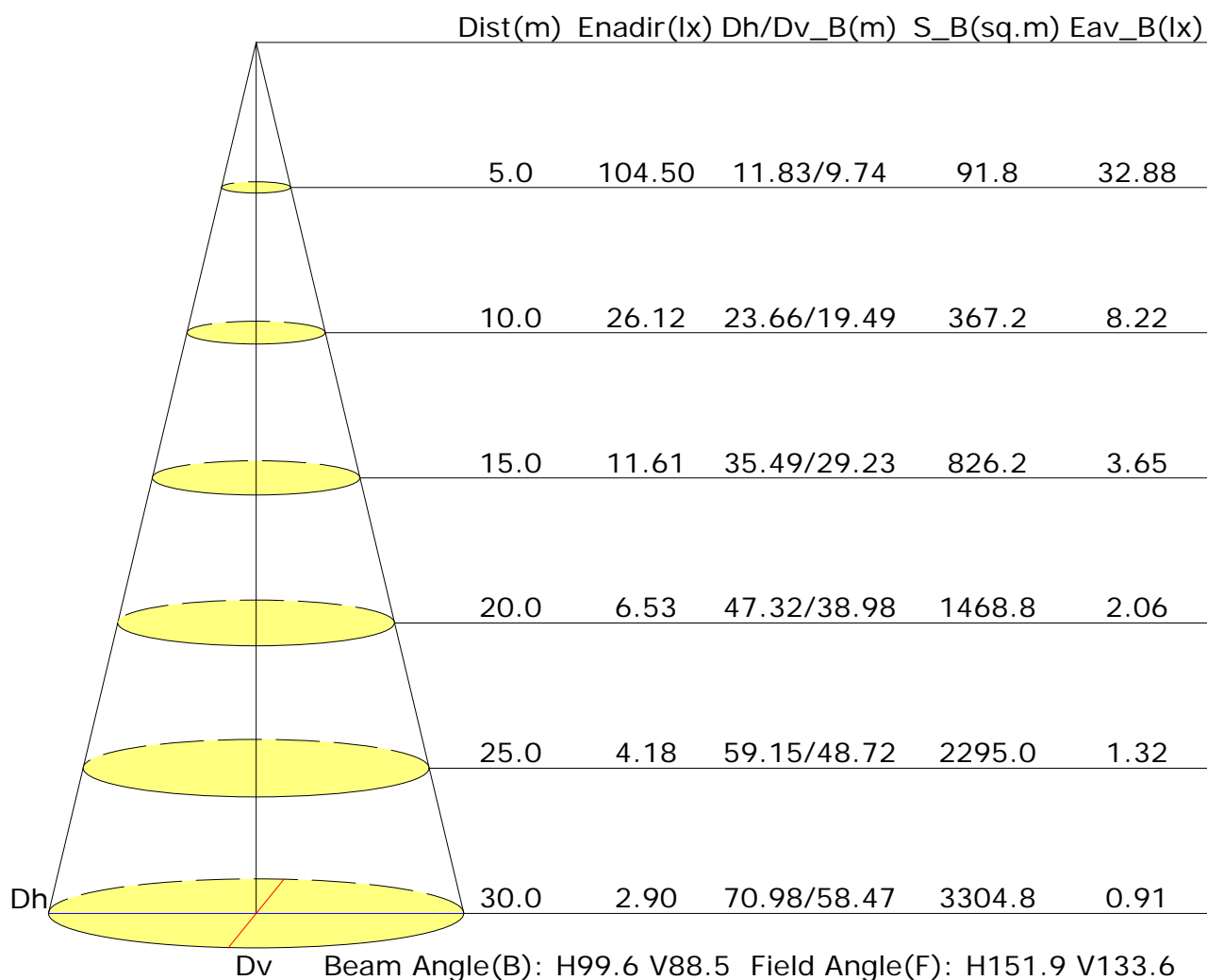
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

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	21.1	22.3	21.4	22.6	22.8	20.8	22.1	21.1	22.3	22.6
3H	21.6	22.7	22.0	23.0	23.3	21.3	22.4	21.6	22.7	23.0
4H	21.8	22.9	22.2	23.2	23.5	21.5	22.5	21.8	22.8	23.1
6H	21.9	22.9	22.3	23.2	23.6	21.6	22.6	22.0	22.9	23.2
8H	22.0	22.9	22.3	23.2	23.6	21.6	22.6	22.0	22.9	23.3
12H	22.0	22.9	22.4	23.2	23.6	21.7	22.6	22.0	22.9	23.2
X=4H Y=2H	21.2	22.3	21.6	22.6	22.9	21.0	22.1	21.4	22.4	22.7
3H	21.9	22.8	22.3	23.2	23.5	21.6	22.5	22.0	22.8	23.2
4H	22.2	23.0	22.6	23.4	23.8	21.8	22.6	22.3	23.0	23.4
6H	22.4	23.1	22.8	23.5	23.9	22.0	22.8	22.5	23.1	23.6
8H	22.5	23.1	22.9	23.5	24.0	22.1	22.8	22.6	23.2	23.6
12H	22.5	23.1	23.0	23.5	24.0	22.1	22.7	22.6	23.1	23.6
X=8H Y=4H	22.2	22.9	22.7	23.3	23.7	21.9	22.5	22.3	23.0	23.4
6H	22.5	23.0	23.0	23.5	23.9	22.1	22.7	22.6	23.1	23.6
8H	22.6	23.1	23.1	23.5	24.0	22.2	22.7	22.7	23.2	23.7
12H	22.7	23.1	23.2	23.6	24.1	22.3	22.7	22.8	23.2	23.7
X=12H Y=4H	22.2	22.8	22.7	23.2	23.7	21.9	22.5	22.3	22.9	23.3
6H	22.5	23.0	23.0	23.4	23.9	22.1	22.6	22.6	23.1	23.6
8H	22.6	23.0	23.1	23.5	24.0	22.3	22.7	22.8	23.1	23.6
Variations with the observer position at spacings:										
S=1.0H	+0.4/-0.6					+0.5/-0.8				
S=1.5H	+0.8/-1.5					+1.5/-2.0				
S=2.0H	+1.8/-2.3					+2.7/-3.0				

Calculate in accordance with CIE Pub.117. The table is revised with 5872lm ($8\log(F/F_0) = 6.2$).

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Temperature:

Operator:

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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	0.64	0.74	0.81	0.86	0.92	0.96	0.99	1.03	1.06	
	0.30		0.57	0.68	0.75	0.80	0.87	0.92	0.95	1.00	1.03	
	0.20		0.52	0.63	0.70	0.75	0.83	0.88	0.91	0.97	1.00	
0.50	0.50	0.20	0.63	0.72	0.79	0.83	0.89	0.93	0.96	0.99	1.01	
	0.30		0.57	0.66	0.73	0.78	0.85	0.89	0.92	0.96	0.99	
	0.20		0.52	0.62	0.69	0.74	0.81	0.86	0.89	0.94	0.97	
0.30	0.50	0.20	0.61	0.70	0.76	0.81	0.86	0.90	0.92	0.95	0.97	
	0.30		0.56	0.65	0.72	0.76	0.82	0.87	0.89	0.93	0.95	
	0.20		0.52	0.61	0.68	0.73	0.79	0.84	0.87	0.91	0.94	
0.00	0.00	0.00	0.50	0.59	0.65	0.70	0.76	0.80	0.83	0.87	0.89	
Rating: 49W 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	0.88	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	0.29	0.25	0.20	0.17	
0.50	0.50	0.20	0.84	0.68	0.57	0.49	0.39	0.36	0.27	0.21	0.17	
	0.30		0.71	0.59	0.51	0.44	0.36	0.30	0.26	0.20	0.16	
	0.20		0.62	0.52	0.45	0.40	0.33	0.28	0.24	0.19	0.16	
0.30	0.50	0.20	0.82	0.65	0.55	0.47	0.37	0.30	0.26	0.20	0.16	
	0.30		0.70	0.57	0.49	0.43	0.34	0.28	0.24	0.19	0.16	
	0.20		0.61	0.51	0.44	0.39	0.32	0.27	0.23	0.18	0.15	
0.00	0.00	0.00	0.50	0.41	0.34	0.30	0.24	0.20	0.17	0.13	0.11	
Rating: 49W 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	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20	
	0.20		0.06	0.07	0.09	0.10	0.12	0.14	0.15	0.17	0.18	
0.50	0.50	0.20	0.15	0.17	0.17	0.18	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		0.06	0.07	0.09	0.10	0.12	0.14	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		0.10	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.18	
	0.20		0.06	0.07	0.09	0.10	0.12	0.13	0.14	0.16	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: 49W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												