

Report No.:

Test Time: 31.07.2020 19:34

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FD 111 220W 5000K 120 rp Ex

Luminous Length (mm): 400

Luminous Width (mm): 400

Luminous Height (mm): 215

Voltage: 222.1 V

Current: 1.013 A

Power: 220.87 W

Power Factor: 0.981

Photometric Results

CIE Class: Direct

Total Rated Lamp Lumens: 24819.1 lm

Measurement Flux: 24819.1 lm

Efficiency: 100%

Downward Ratio: 100%

Upward Ratio: 0%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 155.7, 155.5, 155.7, 155.6

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 114.8, 114.3, 114.6, 114.5

Luminaire Efficacy Rating (LER): 112.42

Central Intensity: 8672.48 cd

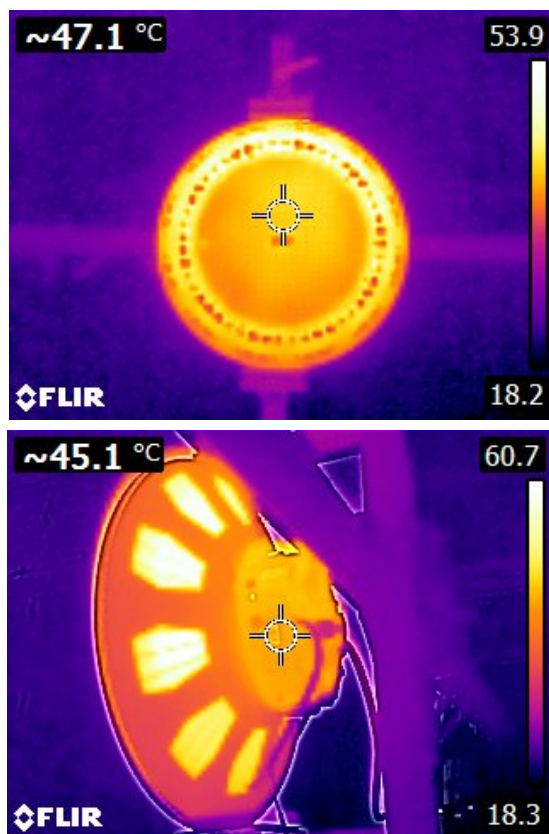
Max. Intensity: 8680.31 cd

Pos of Max. Intensity: H135 V0

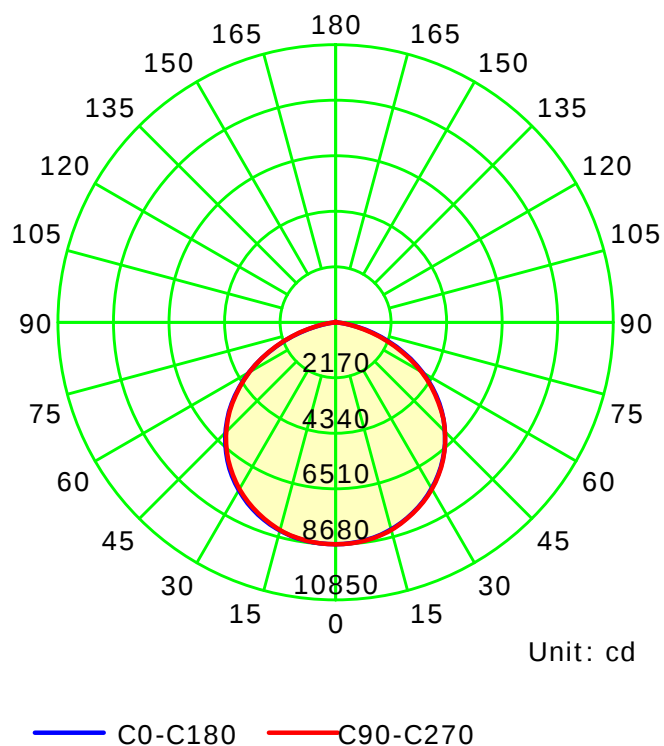
S/MH(C0/C180): 1.29

S/MH(C90/C270): 1.29

Termogramma



Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5

Gamma Plane (°):0.0-180.0:2.0

Test Lab:

Test Device: LSG-1800B

Test Type: TYPE C

Distance: 12.677 m

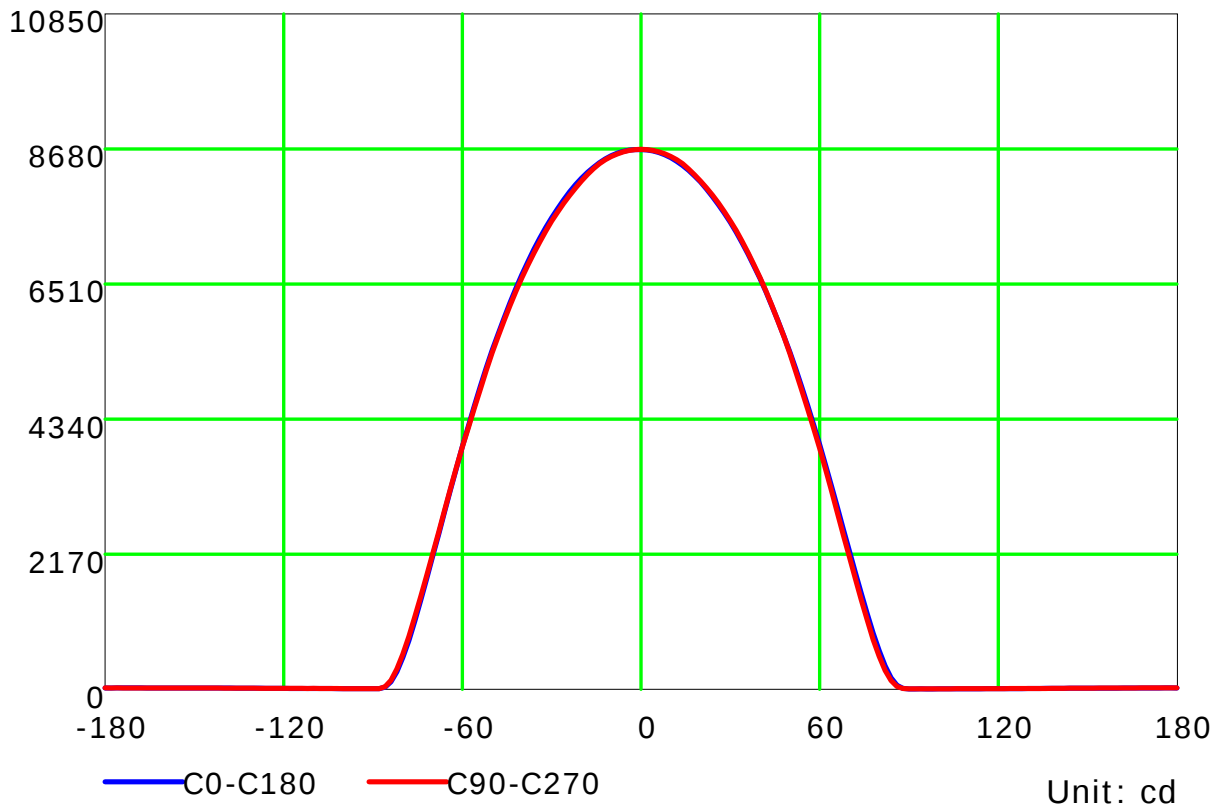
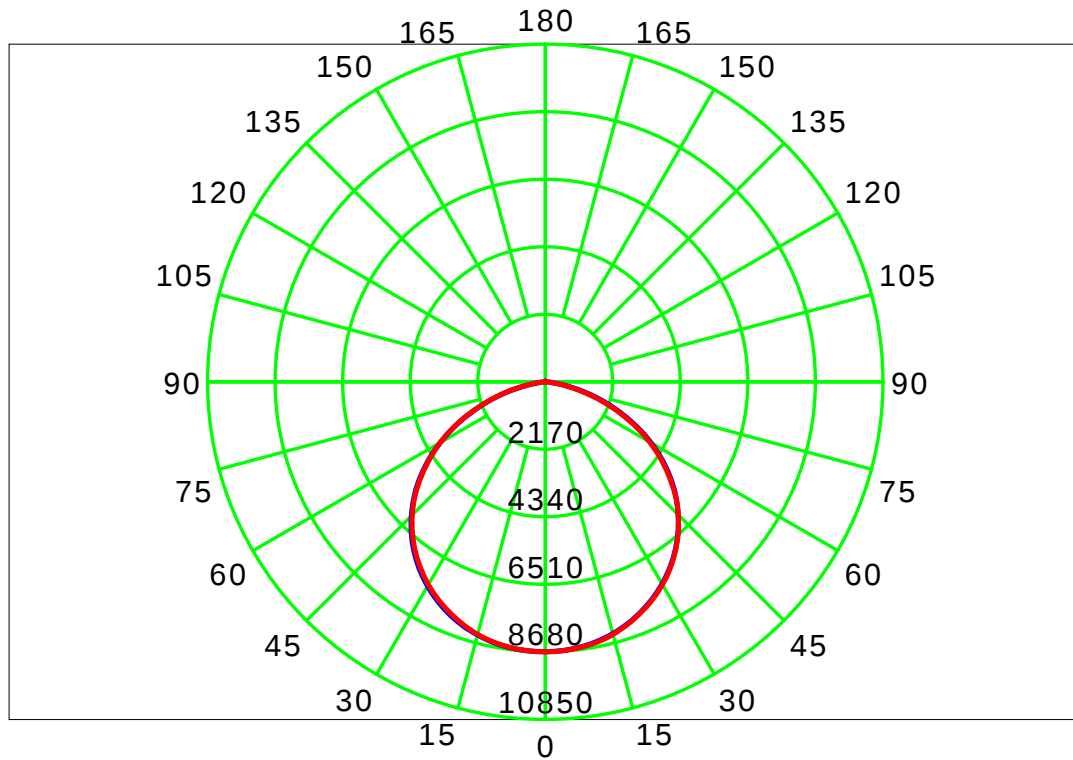
Temperature:

Humidity:

Operator:

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: 2.0

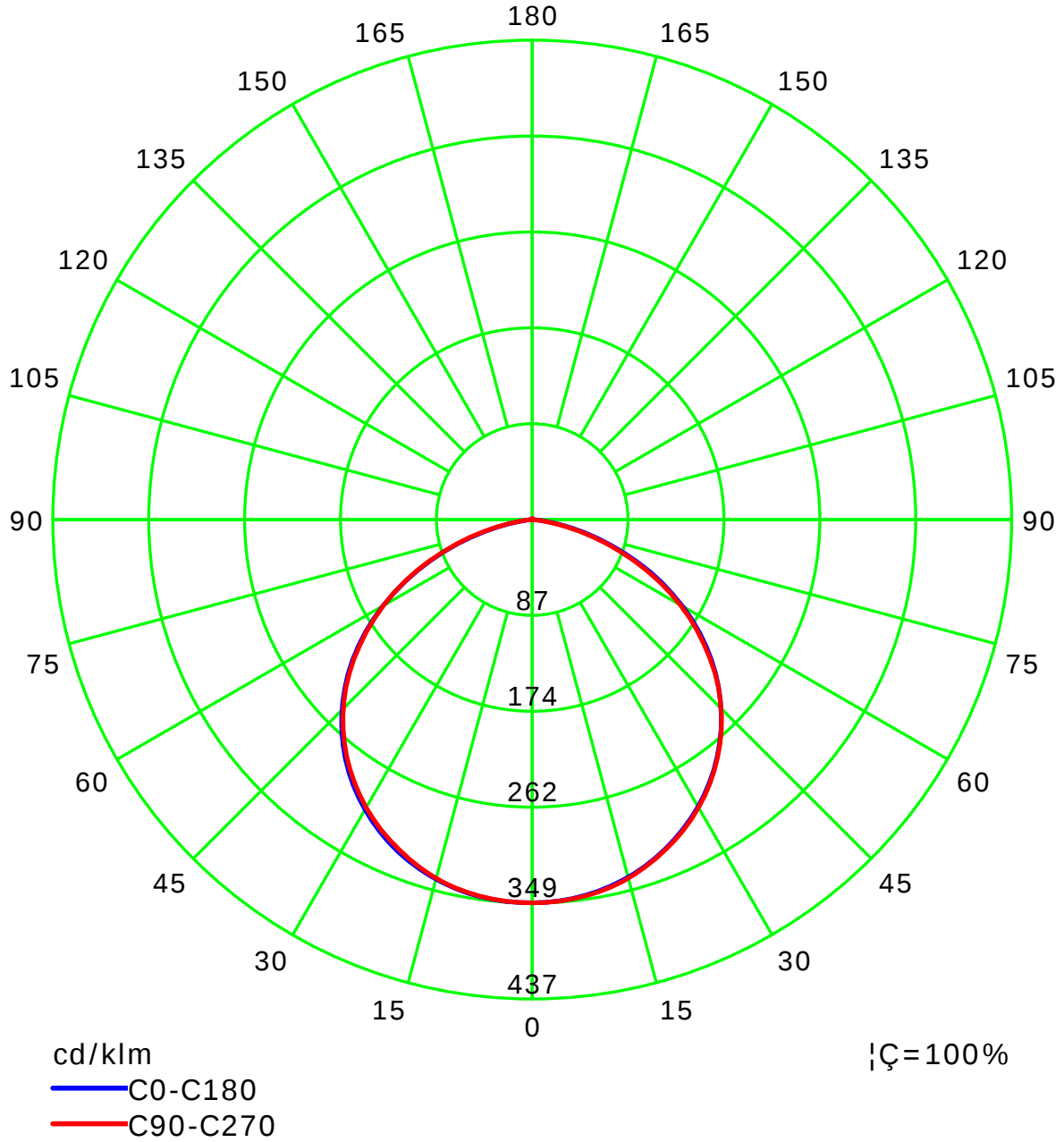
Test Device: LSG-1800B

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 (°):0.0-180.0:2.0

Test Device: LSG-1800B

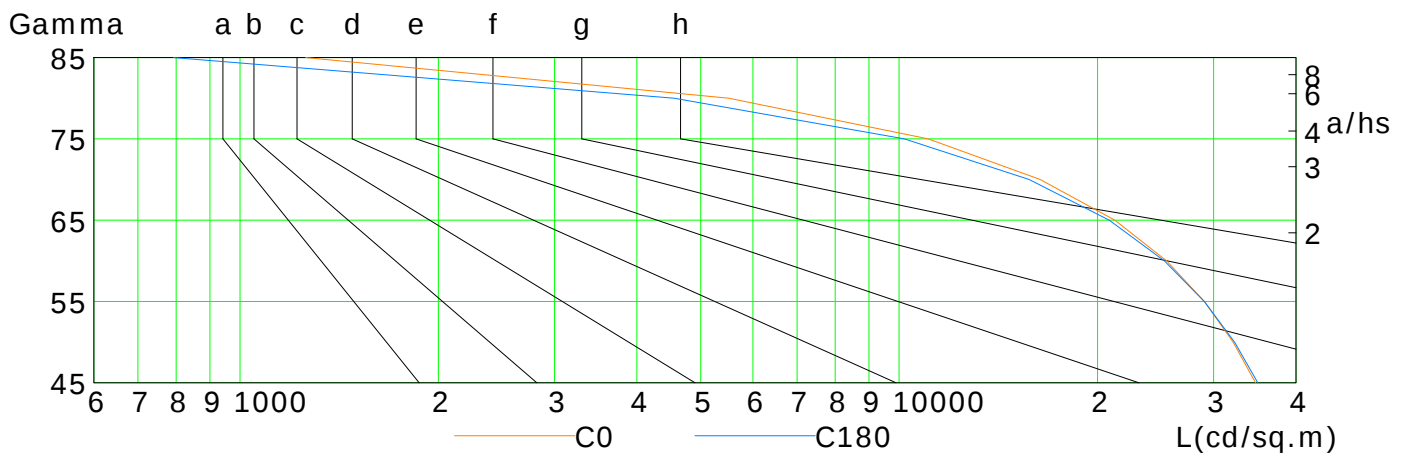
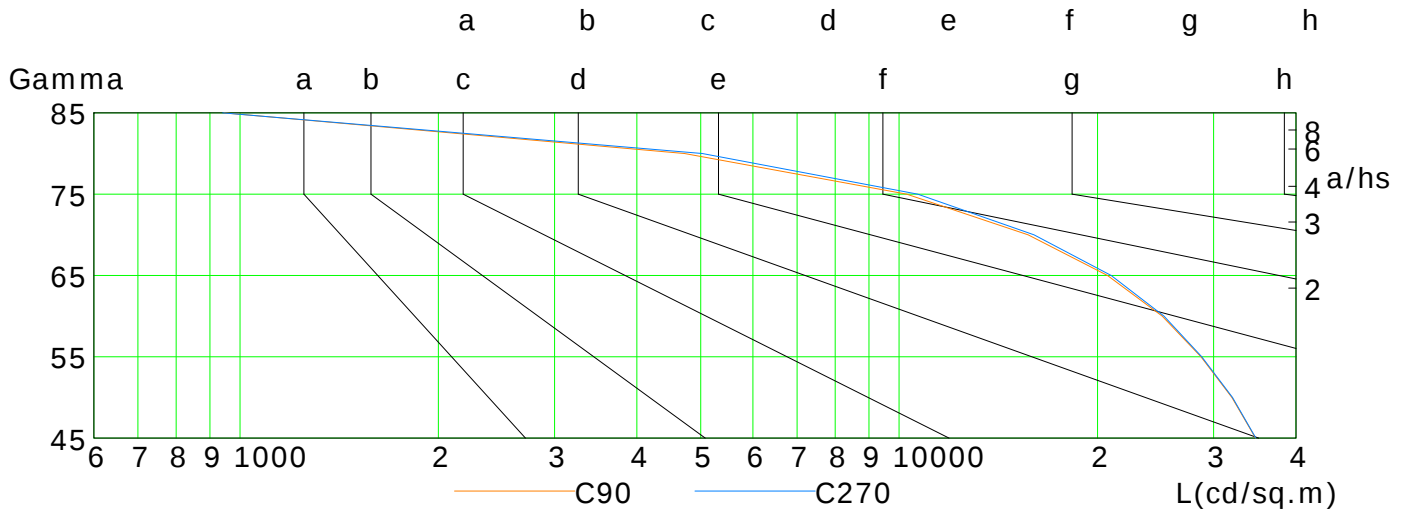
Distance: 12.677 m

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



L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	34726	32113	29040	25457	21251	16372	11066	5513	1258
C90	34740	31977	28701	25076	20702	15689	10269	4725	945
C180	35012	32280	29043	25254	20831	15750	10181	4558	792
C270	34777	32050	28789	25226	20974	16016	10673	5028	941

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.0

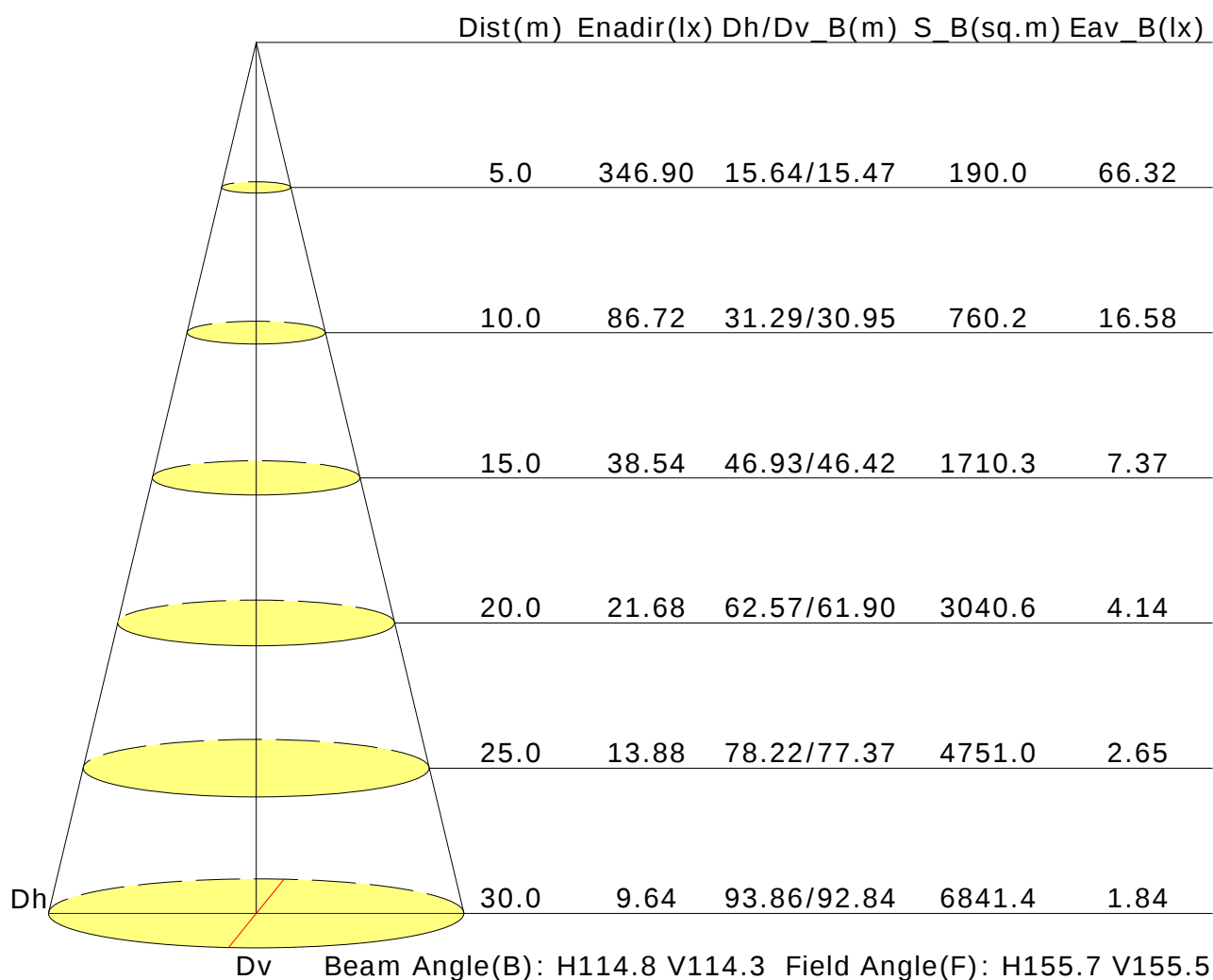
Test Device: LSG-1800B

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	24.1	25.4	24.4	25.7	25.9	24.0	25.4	24.3	25.6	25.9
3H	25.1	26.4	25.5	26.6	26.9	25.1	26.3	25.4	26.6	26.9
4H	25.4	26.6	25.8	26.9	27.2	25.3	26.5	25.7	26.8	27.1
6H	25.5	26.6	25.9	26.9	27.2	25.4	26.5	25.8	26.8	27.1
8H	25.5	26.5	25.9	26.9	27.2	25.4	26.4	25.7	26.7	27.1
12H	25.5	26.5	25.8	26.8	27.1	25.3	26.3	25.7	26.7	27.0
X=4H Y=2H	24.5	25.7	24.9	26.0	26.3	24.5	25.7	24.8	26.0	26.3
3H	25.7	26.7	26.1	27.0	27.4	25.6	26.7	26.0	27.0	27.3
4H	26.1	27.0	26.5	27.3	27.7	26.0	26.9	26.4	27.2	27.6
6H	26.2	27.0	26.6	27.4	27.8	26.1	26.9	26.5	27.3	27.7
8H	26.2	26.9	26.7	27.3	27.8	26.1	26.8	26.5	27.2	27.7
12H	26.2	26.8	26.6	27.3	27.7	26.1	26.7	26.5	27.2	27.6
X=8H Y=4H	26.1	26.9	26.6	27.3	27.7	26.1	26.8	26.5	27.2	27.6
6H	26.3	26.9	26.8	27.4	27.8	26.2	26.8	26.7	27.3	27.7
8H	26.4	26.9	26.8	27.3	27.8	26.3	26.8	26.7	27.2	27.7
12H	26.3	26.8	26.8	27.3	27.8	26.2	26.7	26.7	27.1	27.7
X=12H Y=4H	26.1	26.8	26.6	27.2	27.7	26.1	26.7	26.5	27.1	27.6
6H	26.3	26.8	26.8	27.3	27.8	26.2	26.7	26.7	27.2	27.7
8H	26.3	26.8	26.8	27.3	27.8	26.2	26.7	26.7	27.2	27.7
Variations with the observer position at spacings:										
S=1.0H	+0.2/-0.2					+0.2/-0.2				
S=1.5H	+0.4/-0.6					+0.4/-0.7				
S=2.0H	+0.9/-1.4					+0.9/-1.4				

Calculate in accordance with CIE Pub.117. The table is revised with 24819lm ($8\log(F/F_0) = 11.2$).

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:

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	0.57	0.68	0.75	0.81	0.88	0.93	0.97	1.01	1.04	
	0.30		0.49	0.60	0.68	0.74	0.82	0.88	0.92	0.97	1.01	
	0.20		0.44	0.54	0.62	0.69	0.77	0.83	0.88	0.94	0.98	
0.50	0.50	0.20	0.55	0.66	0.73	0.78	0.85	0.90	0.93	0.97	1.00	
	0.30		0.48	0.59	0.67	0.72	0.80	0.85	0.89	0.94	0.97	
	0.20		0.43	0.54	0.62	0.67	0.76	0.81	0.85	0.91	0.95	
0.30	0.50	0.20	0.54	0.64	0.71	0.75	0.82	0.86	0.90	0.93	0.96	
	0.30		0.48	0.58	0.65	0.70	0.78	0.83	0.86	0.91	0.94	
	0.20		0.43	0.53	0.61	0.66	0.74	0.79	0.83	0.88	0.92	
0.00	0.00	0.00	0.41	0.51	0.58	0.63	0.71	0.76	0.79	0.84	0.87	
Rating:221W 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	0.99	0.81	0.68	0.59	0.47	0.39	0.33	0.25	0.20	
	0.30		0.83	0.69	0.60	0.53	0.42	0.35	0.30	0.24	0.19	
	0.20		0.71	0.61	0.53	0.47	0.39	0.33	0.28	0.22	0.19	
0.50	0.50	0.20	0.95	0.78	0.66	0.57	0.45	0.40	0.31	0.24	0.19	
	0.30		0.81	0.68	0.58	0.51	0.41	0.34	0.29	0.23	0.19	
	0.20		0.70	0.60	0.52	0.46	0.38	0.32	0.27	0.22	0.18	
0.30	0.50	0.20	0.93	0.75	0.63	0.54	0.43	0.35	0.30	0.23	0.18	
	0.30		0.79	0.66	0.56	0.49	0.39	0.33	0.28	0.22	0.18	
	0.20		0.69	0.59	0.51	0.45	0.37	0.31	0.26	0.21	0.17	
0.00	0.00	0.00	0.59	0.49	0.42	0.36	0.29	0.24	0.20	0.16	0.13	
Rating:221W 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	0.18	0.19	0.19	0.20	0.21	0.21	0.22	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	0.08	0.09	0.12	0.13	0.14	0.16	0.17	
0.50	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	0.12	0.13	0.15	0.16	0.17	0.18	0.19	
	0.20		0.05	0.07	0.08	0.09	0.11	0.13	0.14	0.16	0.17	
0.30	0.50	0.20	0.16	0.17	0.17	0.18	0.19	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	0.09	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:221W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												