

Report No.: 1

Test Time: 04.03.2020 15:21

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FT 190 60W 3000K 20-90 rp.

Luminous Length (mm): 580

Luminous Width (mm): 95

Luminous Height (mm): 60

Voltage: 229.5 V

Current: 0.275 A

Power: 62.29 W

Power Factor: 0.986

Photometric Results

CIE Class: Direct

Total Rated Lamp Lumens: 9403.3 lm

Measurement Flux: 9403.3 lm

Efficiency: 100%

Downward Ratio: 99%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 140.9, 137.0, 104.7, 104.8

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 115.5, 44.8, 51.2, 50.9

Luminaire Efficacy Rating (LER): 151.01

Central Intensity: 2817.04 cd

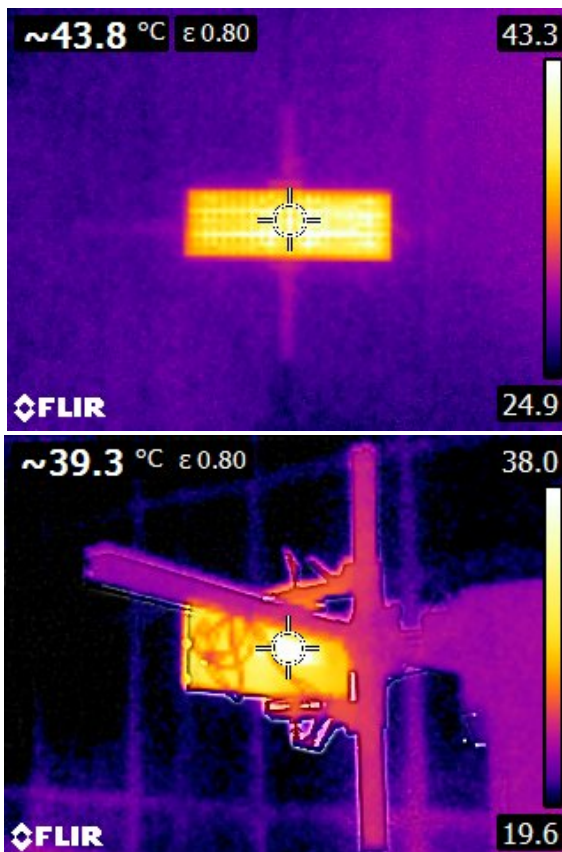
Max. Intensity: 7006.86 cd

Pos of Max. Intensity: H45 V24

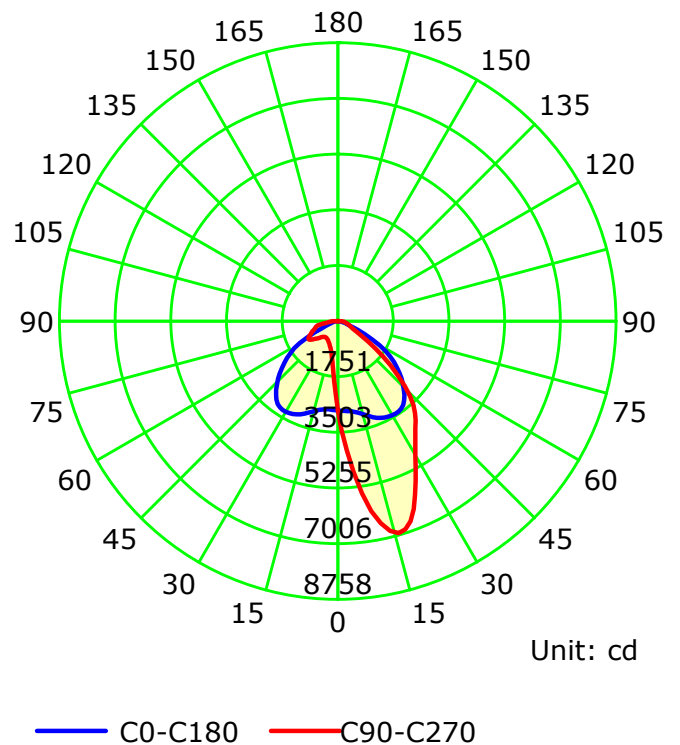
S/MH(C0/C180): 1.68

S/MH(C90/C270): 1.37

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

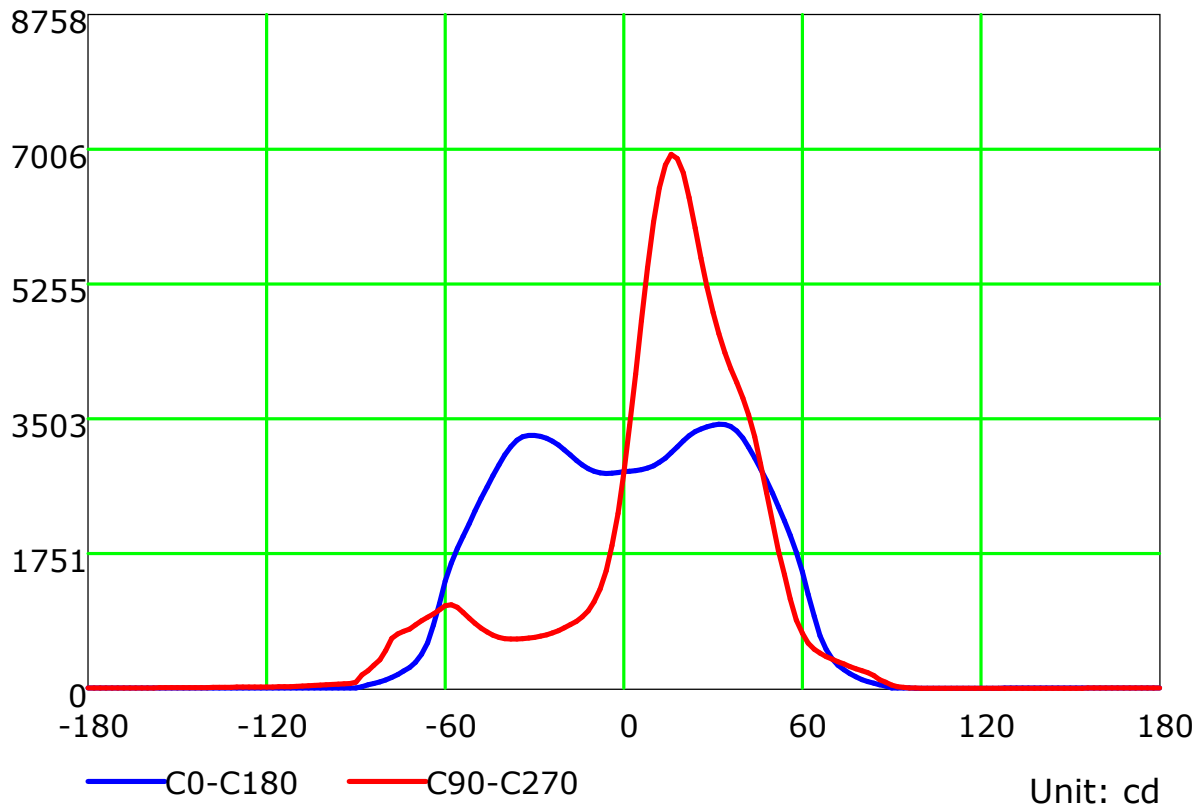
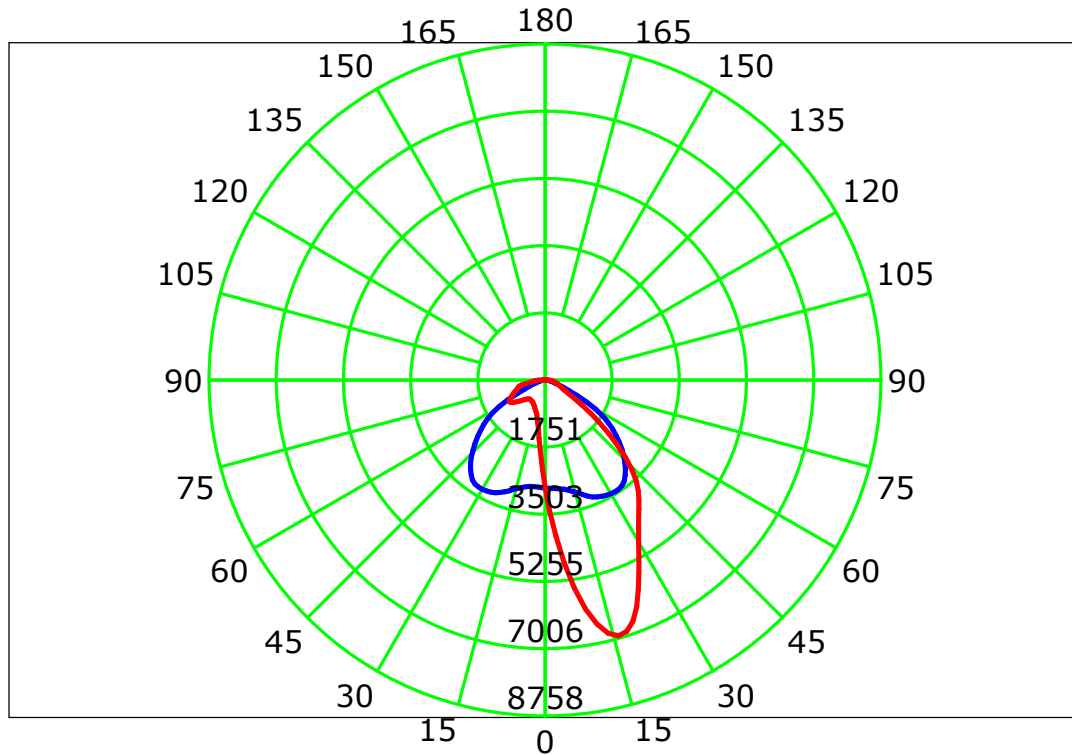
Temperature:

Humidity:

Operator:

Inspector:

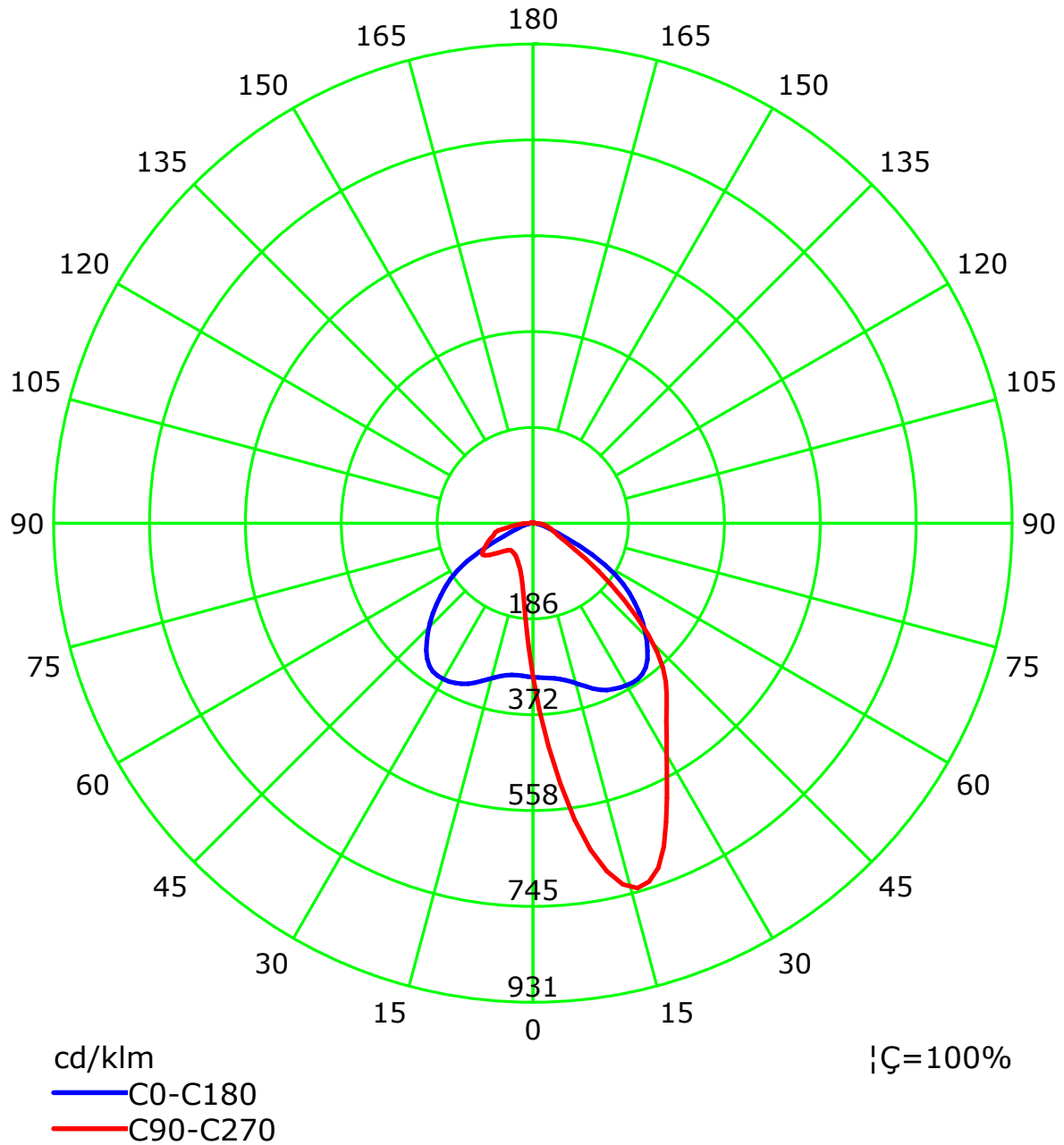
Luminous Intensity Distribution Curve



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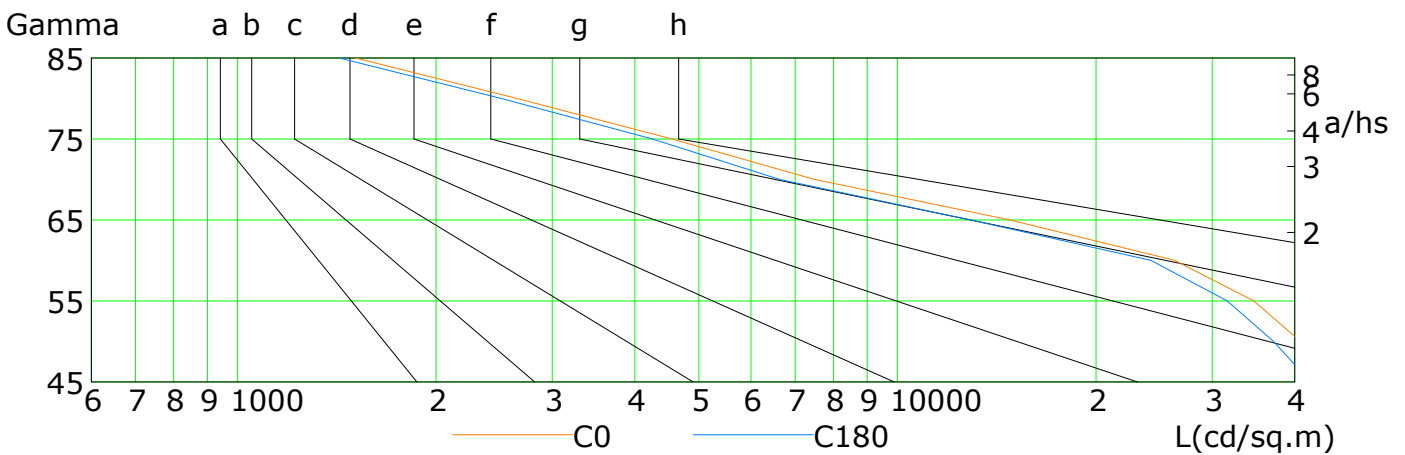
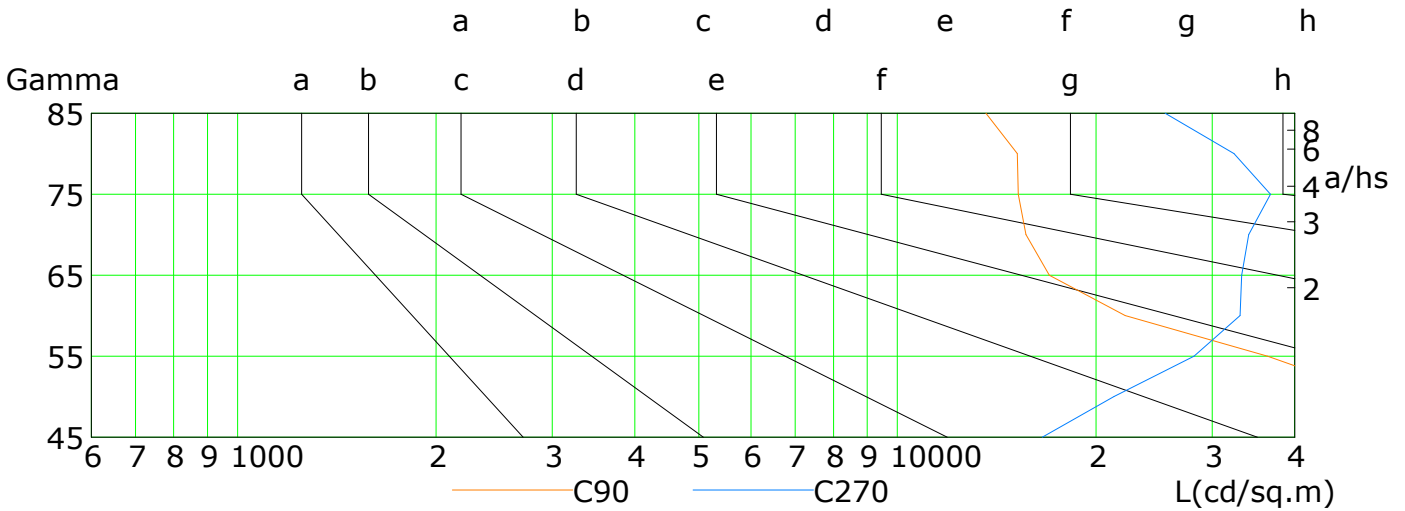
Gamma Plane (°):0.0-180.0:2.0
 Test Device: LSG-1800B
 Distance: 12.677 m
 Humidity:
 Inspector:

Luminous Intensity Distribution Curve(cd/klm)



Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
		a	b	c	d	e	f	g	h
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	46021	40849	34673	26302	14805	7477	4555	2647	1509
C90	72048	54219	36402	22150	16994	15667	15255	15198	13626
C180	42360	37145	31607	24205	12916	6618	4253	2506	1425
C270	16587	21303	28139	33075	33245	34061	36773	32385	25471

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.0

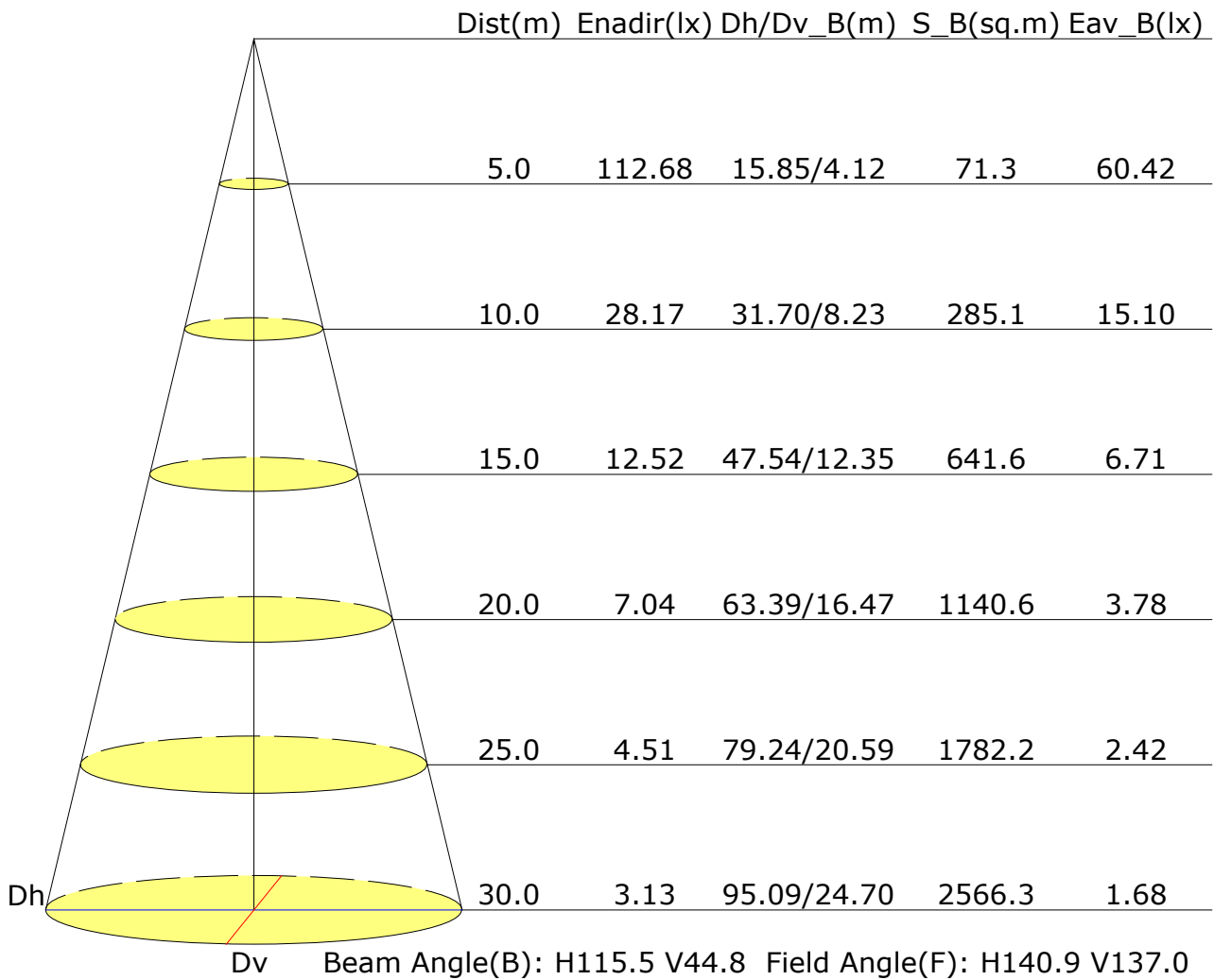
Test Device: LSG-1800B

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	25.8	27.1	26.1	27.3	27.5	24.5	25.8	24.8	26.0	26.2
3H	25.9	27.0	26.2	27.3	27.6	25.3	26.4	25.6	26.7	27.0
4H	25.9	27.0	26.2	27.2	27.5	25.8	26.9	26.1	27.1	27.4
6H	25.8	26.8	26.2	27.1	27.5	26.3	27.3	26.6	27.6	27.9
8H	25.8	26.8	26.2	27.1	27.4	26.4	27.4	26.8	27.7	28.1
12H	25.8	26.7	26.1	27.0	27.4	26.6	27.5	26.9	27.8	28.2
X=4H Y=2H	25.9	27.0	26.2	27.3	27.6	24.8	25.9	25.1	26.2	26.5
3H	26.1	27.0	26.4	27.3	27.7	25.7	26.6	26.0	26.9	27.3
4H	26.1	26.9	26.5	27.3	27.6	26.2	27.0	26.6	27.4	27.8
6H	26.0	26.8	26.5	27.2	27.6	26.8	27.5	27.2	27.9	28.3
8H	26.0	26.7	26.5	27.1	27.5	27.0	27.6	27.4	28.0	28.5
12H	26.0	26.6	26.5	27.0	27.5	27.2	27.8	27.6	28.2	28.6
X=8H Y=4H	26.1	26.7	26.5	27.1	27.6	26.2	26.9	26.6	27.3	27.7
6H	26.1	26.6	26.5	27.1	27.5	26.8	27.3	27.3	27.8	28.3
8H	26.1	26.5	26.6	27.0	27.5	27.0	27.5	27.5	28.0	28.5
12H	26.1	26.5	26.6	26.9	27.5	27.3	27.7	27.8	28.2	28.7
X=12H Y=4H	26.0	26.6	26.5	27.1	27.5	26.2	26.8	26.6	27.2	27.6
6H	26.1	26.5	26.5	27.0	27.5	26.8	27.2	27.3	27.7	28.2
8H	26.1	26.5	26.6	26.9	27.5	27.0	27.4	27.5	27.9	28.4
Variations with the observer position at spacings:										
S=1.0H	+0.9/-1.0					+0.3/-0.4				
S=1.5H	+2.0/-3.0					+0.4/-0.9				
S=2.0H	+3.4/-6.3					+1.1/-1.6				

Calculate in accordance with CIE Pub.117. The table is revised with 9403lm ($8\log(F/F_0) = 7.8$).

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 = 1.50									
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	0.66	0.75	0.81	0.86	0.93	0.97	1.00	1.03	1.06	
		0.30	0.60	0.68	0.75	0.80	0.87	0.92	0.95	1.00	1.03	
		0.20	0.55	0.63	0.70	0.76	0.83	0.88	0.92	0.97	1.00	
0.50	0.50	0.20	0.65	0.73	0.79	0.84	0.89	0.93	0.96	0.99	1.01	
		0.30	0.59	0.67	0.74	0.79	0.85	0.89	0.92	0.96	0.99	
		0.20	0.54	0.62	0.69	0.75	0.81	0.86	0.89	0.94	0.97	
0.30	0.50	0.20	0.63	0.71	0.77	0.81	0.87	0.90	0.92	0.96	0.98	
		0.30	0.58	0.66	0.72	0.77	0.83	0.87	0.90	0.93	0.96	
		0.20	0.54	0.62	0.69	0.73	0.80	0.84	0.87	0.91	0.94	
0.00	0.00	0.00	0.52	0.59	0.66	0.70	0.76	0.80	0.83	0.87	0.89	
<p>Rating:62W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>												

Utilisation Factor Table(Wall)

Utilisation Factors UF(W)			SHR NOM = 1.50									
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	0.85	0.70	0.59	0.51	0.40	0.33	0.28	0.22	0.18	
	0.30		0.71	0.60	0.51	0.45	0.36	0.30	0.26	0.21	0.17	
	0.20		0.61	0.53	0.46	0.40	0.33	0.28	0.24	0.19	0.16	
0.50	0.50	0.20	0.81	0.67	0.56	0.48	0.38	0.35	0.27	0.21	0.17	
	0.30		0.69	0.58	0.50	0.43	0.35	0.29	0.25	0.20	0.16	
	0.20		0.60	0.52	0.44	0.39	0.32	0.27	0.23	0.19	0.15	
0.30	0.50	0.20	0.79	0.65	0.54	0.46	0.36	0.30	0.25	0.19	0.16	
	0.30		0.67	0.57	0.48	0.42	0.33	0.28	0.24	0.19	0.15	
	0.20		0.59	0.51	0.43	0.38	0.31	0.26	0.22	0.18	0.15	
0.00	0.00	0.00	0.48	0.40	0.34	0.29	0.23	0.19	0.16	0.13	0.10	
<p>Rating:62W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>												

Utilisation Factor Table(Ceiling cavity)

Utilisation Factors UF(C)			SHR NOM = 1.50								
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		0.06	0.07	0.09	0.10	0.12	0.14	0.15	0.17	0.18
0.50	0.50	0.20	0.15	0.16	0.17	0.18	0.19	0.19	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	0.13	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		0.06	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
<p>Rating:62W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>											