

Report No.: 1

Test Time: 07.11.2019 19:07

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FG 180 4x18LED 0,35A 20W 3000K bez stekla

Luminous Length (mm): 1200

Luminous Width (mm): 180

Luminous Height (mm): 35

Voltage: 221.1 V

Current: 0.100 A

Power: 21.60 W

Power Factor: 0.973

Photometric Results

CIE Class: Direct

Measurement Flux: 3021.3 lm

Downward Ratio: 99%

Total Rated Lamp Lumens: 3021.3 lm

Efficiency: 100%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 160.8, 145.5, 154.4, 154.7

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 117.0, 114.5, 116.2, 115.7

Luminaire Efficacy Rating (LER): 139.92

Central Intensity: 1057.9 cd

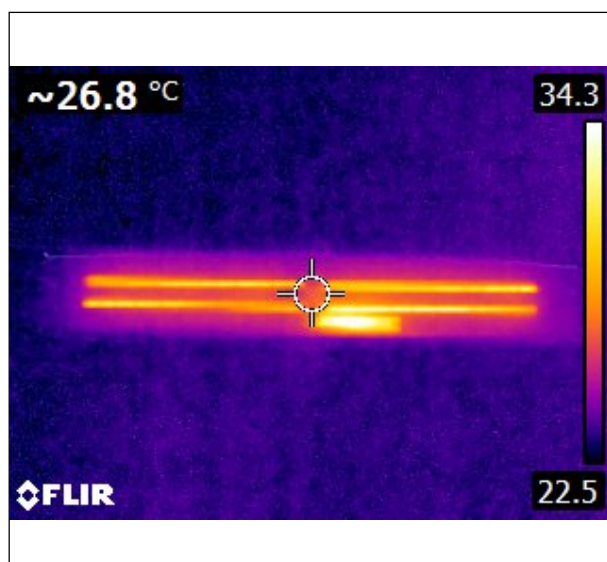
Max. Intensity: 1061.7 cd

Pos of Max. Intensity: H112.5 V4

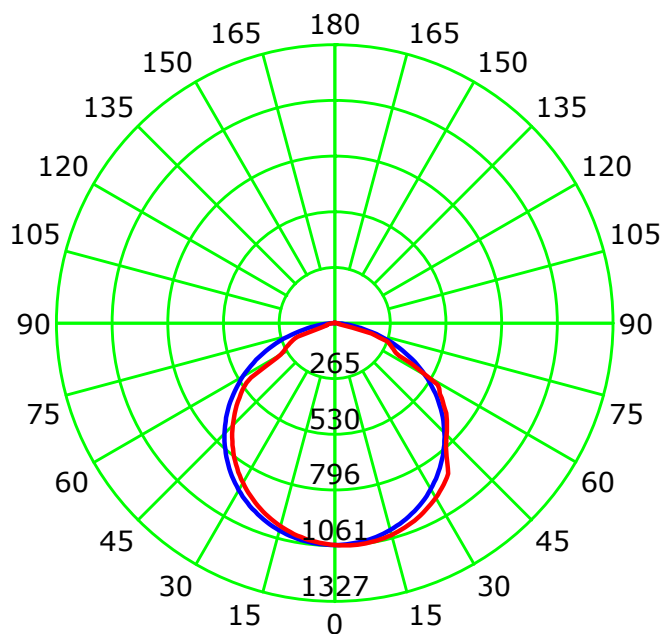
S/MH(C0/C180): 1.29

S/MH(C90/C270): 1.29

Termogramma



Luminous Intensity Distribution Curve



— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

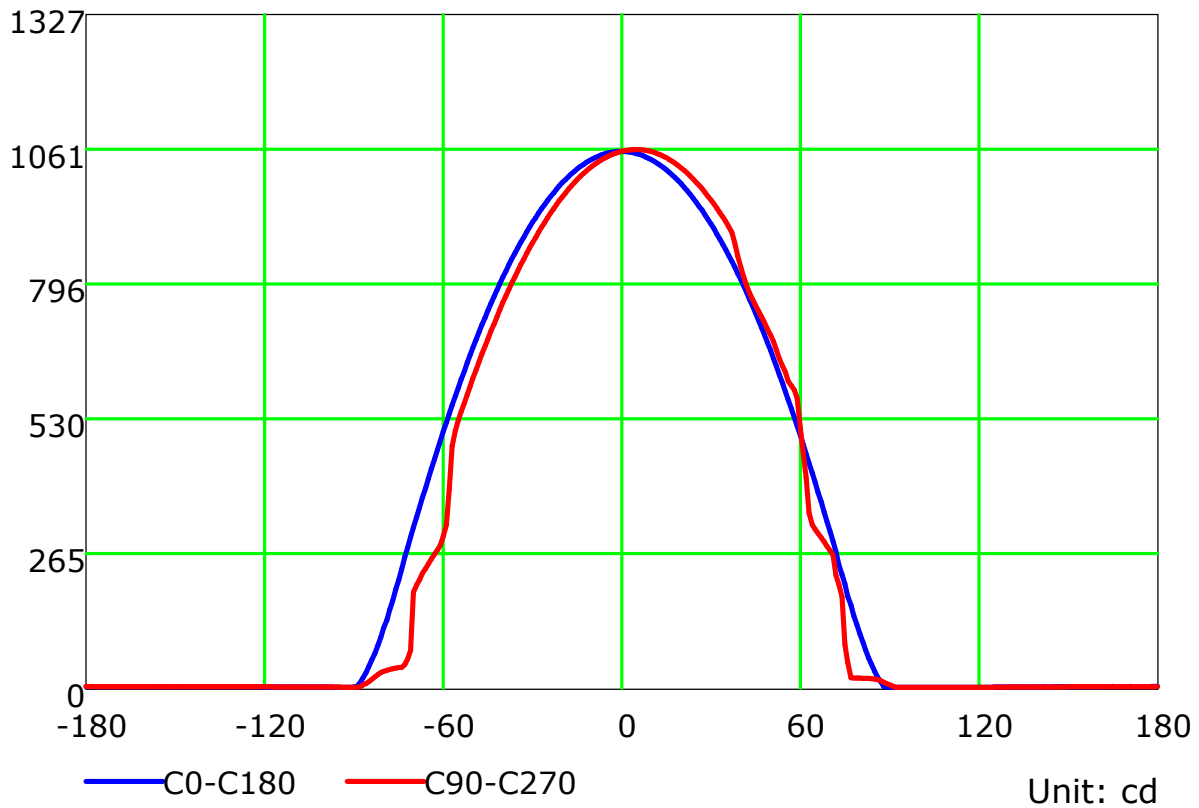
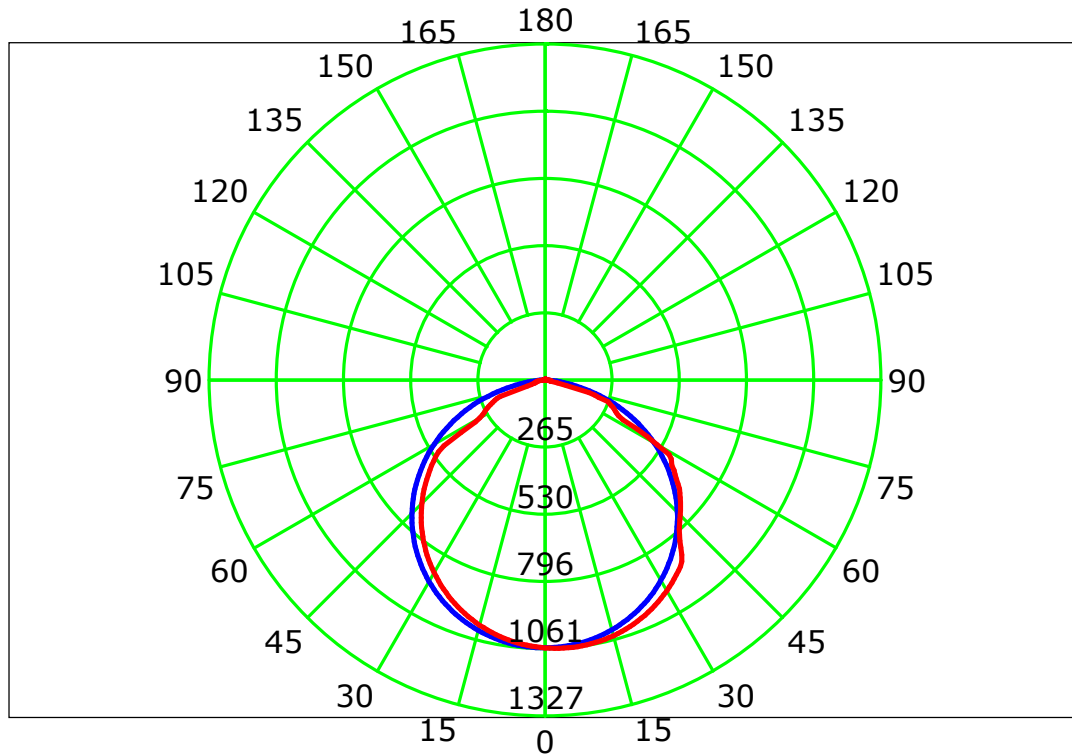
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

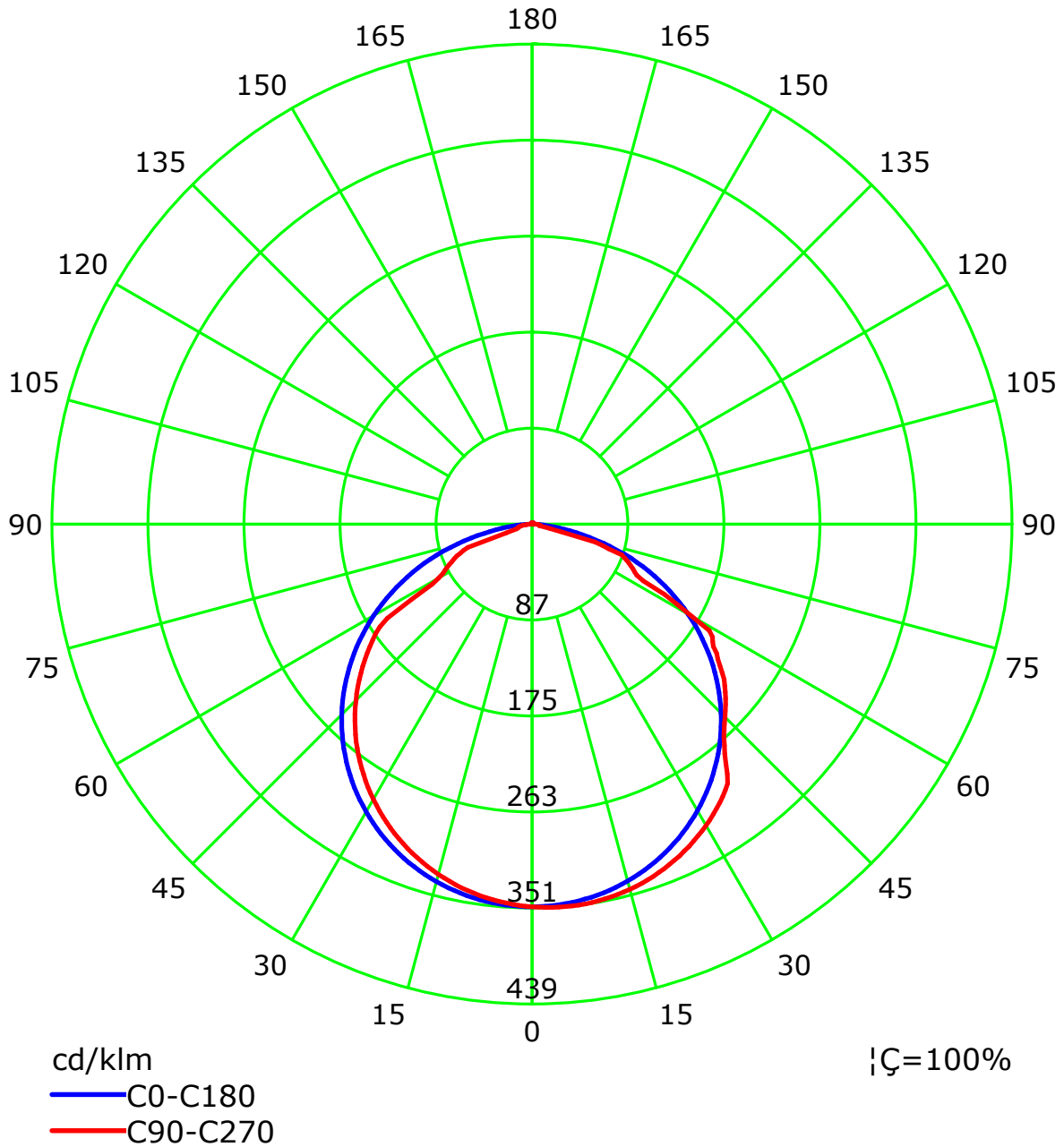
Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-180.0:1.0
Test Device: LSG-1800B
Distance: 12.677 m
Humidity:
Inspector:

Luminous Intensity Distribution Curve(cd/klm)



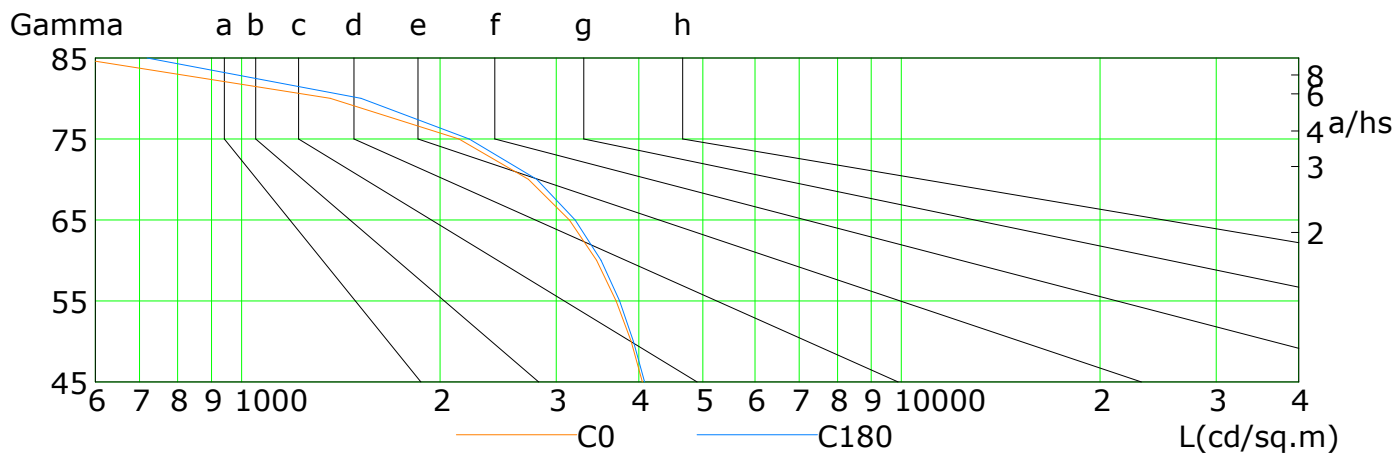
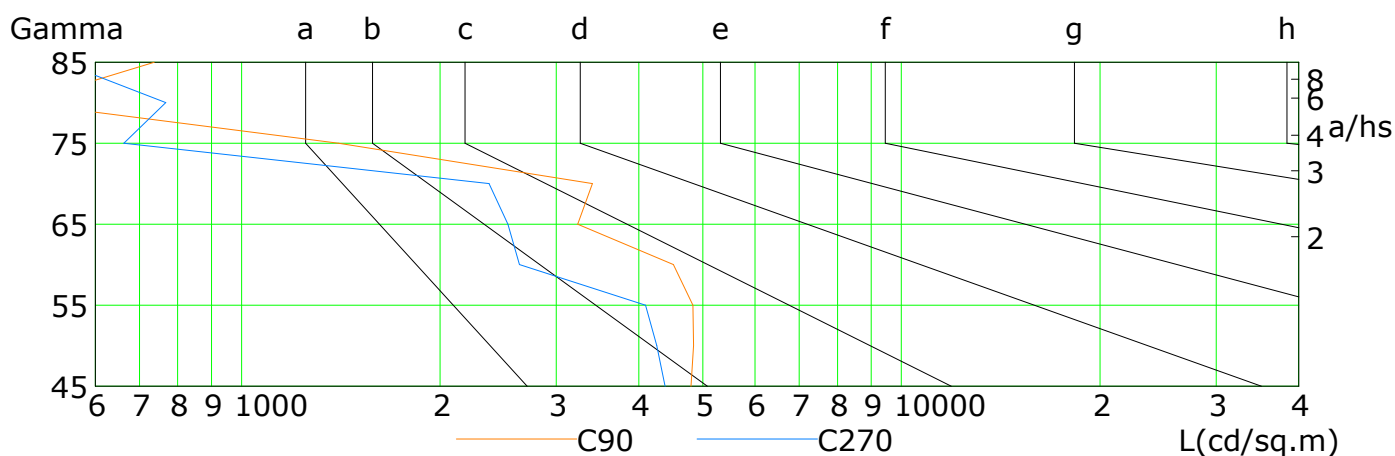
C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

Gamma Plane (°):0.0-180.0:1.0
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

a b c d e f g h

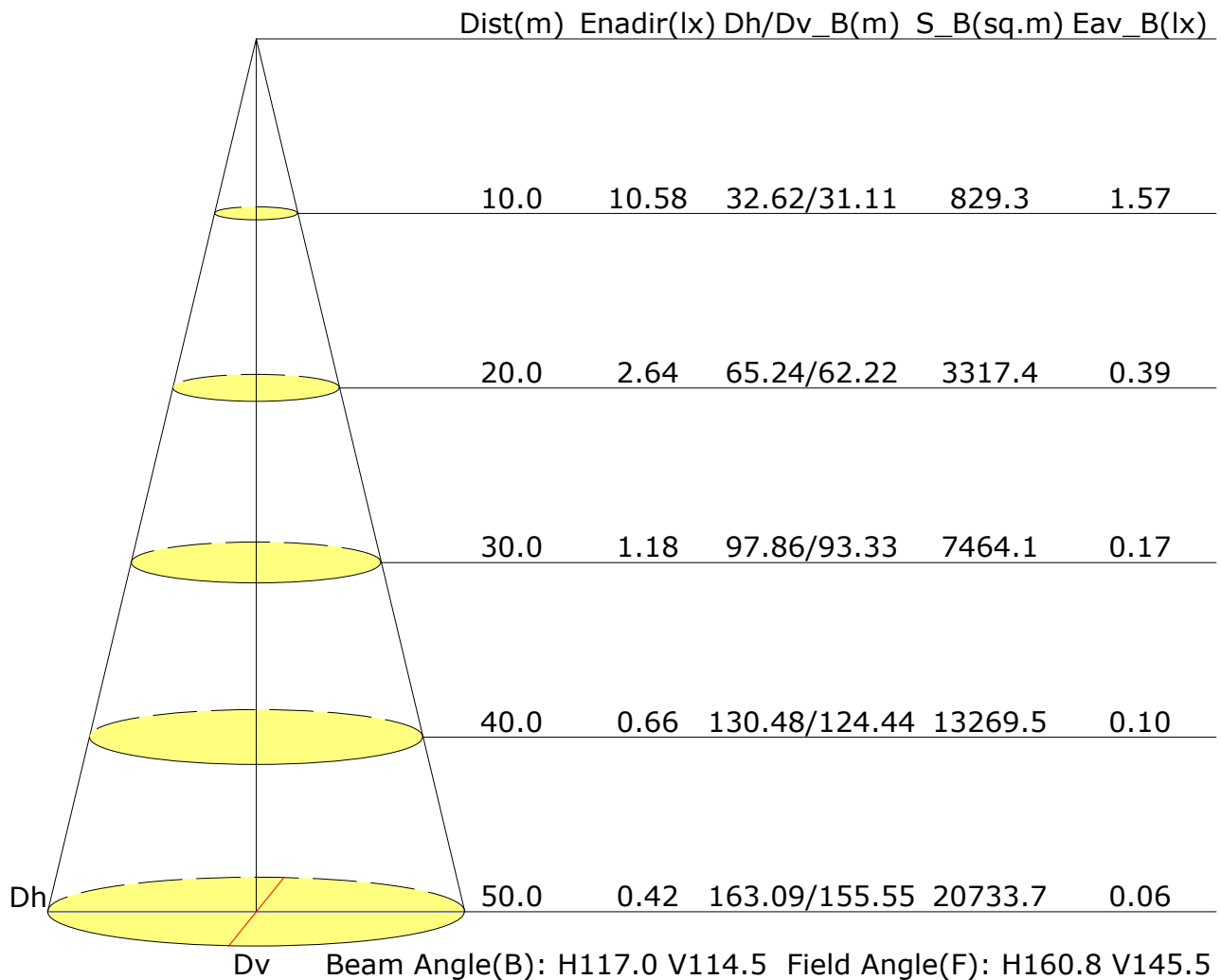


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	4051	3893	3696	3451	3139	2722	2136	1362	560
C90	4800	4843	4829	4512	3233	3403	1403	462	737
C180	4082	3927	3740	3506	3202	2800	2213	1517	719
C270	4383	4258	4093	2636	2533	2373	663	767	533

C Plane (°):0.0-360.0: 22.5
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 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	17.4	18.7	17.7	19.0	19.2	17.3	18.7	17.6	18.9	19.2
3H	18.7	20.0	19.1	20.3	20.5	18.2	19.5	18.6	19.7	20.0
4H	19.2	20.4	19.6	20.7	21.0	18.4	19.6	18.8	19.9	20.2
6H	19.4	20.5	19.8	20.8	21.1	18.4	19.4	18.7	19.8	20.1
8H	19.4	20.5	19.8	20.8	21.1	18.3	19.4	18.7	19.7	20.0
12H	19.4	20.4	19.8	20.8	21.1	18.3	19.3	18.7	19.6	20.0
X=4H Y=2H	18.0	19.1	18.3	19.4	19.7	17.9	19.0	18.2	19.3	19.6
3H	19.5	20.4	19.8	20.8	21.1	18.9	19.9	19.3	20.2	20.6
4H	20.0	20.9	20.4	21.3	21.7	19.1	20.0	19.5	20.4	20.8
6H	20.3	21.1	20.7	21.4	21.9	19.1	19.9	19.5	20.3	20.7
8H	20.3	21.0	20.8	21.4	21.9	19.1	19.8	19.5	20.2	20.6
12H	20.3	21.0	20.8	21.4	21.8	19.1	19.7	19.5	20.1	20.6
X=8H Y=4H	20.1	20.8	20.5	21.2	21.6	19.2	20.0	19.7	20.4	20.8
6H	20.4	21.0	20.9	21.4	21.9	19.2	19.8	19.7	20.3	20.7
8H	20.5	21.0	20.9	21.4	21.9	19.2	19.7	19.7	20.2	20.7
12H	20.5	20.9	21.0	21.4	21.9	19.2	19.7	19.7	20.2	20.7
X=12H Y=4H	20.1	20.7	20.5	21.1	21.6	19.2	19.9	19.7	20.3	20.8
6H	20.4	20.9	20.8	21.3	21.8	19.2	19.7	19.7	20.2	20.7
8H	20.4	20.9	20.9	21.3	21.9	19.2	19.7	19.7	20.1	20.7
Variations with the observer position at spacings:										
S=1.0H	+0.2/-0.2					+0.5/-0.5				
S=1.5H	+0.4/-0.6					+1.0/-1.5				
S=2.0H	+0.7/-1.2					+1.4/-1.9				

Calculate in accordance with CIE Pub.117. The table is revised with 3021lm ($8\log(F/F_0) = 3.8$).

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 Test Type: TYPE C
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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	0.57	0.68	0.76	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	0.55	0.63	0.69	0.77	0.84	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	0.68	0.76	0.82	0.86	0.91	0.95	
0.30	0.50	0.20	0.54	0.64	0.71	0.76	0.82	0.87	0.90	0.94	0.96	
	0.30		0.48	0.58	0.65	0.71	0.78	0.83	0.86	0.91	0.94	
	0.20		0.43	0.53	0.61	0.66	0.74	0.80	0.83	0.89	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:22W 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	0.69	0.59	0.47	0.39	0.33	0.25	0.21	
	0.30		0.83	0.69	0.60	0.53	0.43	0.36	0.31	0.24	0.20	
	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	0.96	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	0.28	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	0.19	
	0.30		0.79	0.66	0.56	0.49	0.40	0.33	0.28	0.22	0.18	
	0.20		0.69	0.59	0.51	0.45	0.37	0.31	0.27	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:22W 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	0.20	0.20	0.21	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		0.05	0.07	0.08	0.10	0.12	0.13	0.15	0.16	0.18	
0.50	0.50	0.20	0.16	0.17	0.18	0.19	0.20	0.20	0.21	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		0.05	0.07	0.08	0.10	0.12	0.13	0.14	0.16	0.17	
0.30	0.50	0.20	0.16	0.17	0.18	0.18	0.19	0.19	0.20	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		0.05	0.07	0.08	0.09	0.11	0.13	0.14	0.15	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:22W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												