Lisun Electronics Inc.
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Report No.: 1 Test Time: 21.01.2020 15:41

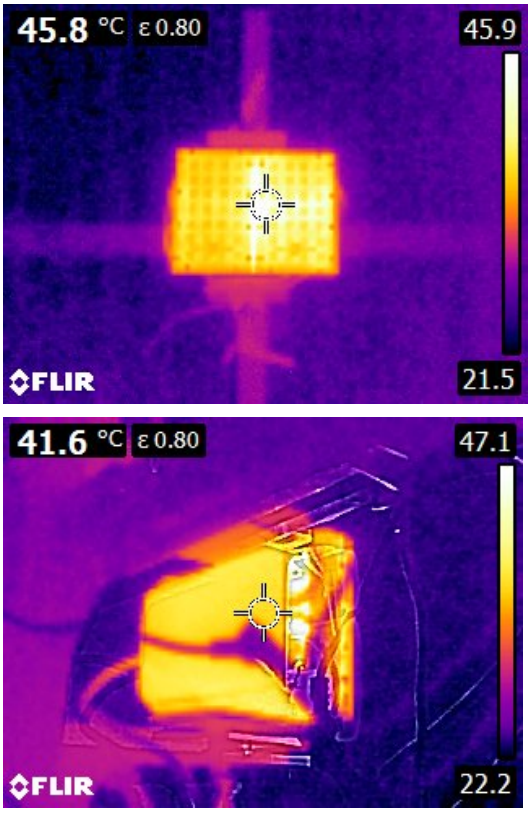
Luminaire Property

Luminaire Manufacturer:
Luminaire Description: FP 150 HE 50W 5000K 150X55gr
Luminous Length (mm): 200 Luminous Width (mm): 150
Luminous Height (mm): 80 Voltage: 221.3 V
Current: 0.240 A Power: 52.70 W
Power Factor: 0.988

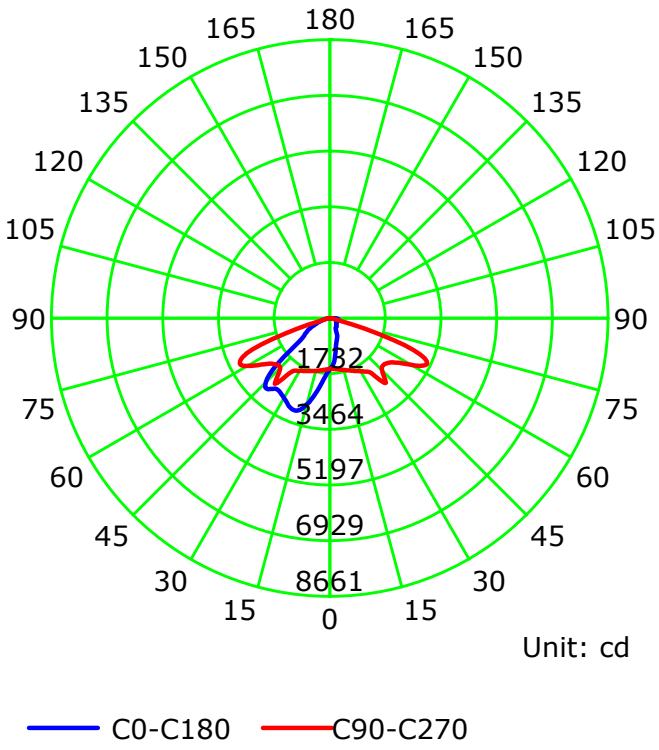
Photometric Results

CIE Class: Direct Total Rated Lamp Lumens: 8034.0 lm
Measurement Flux: 8034 lm Efficiency: 100%
Downward Ratio: 99% Upward Ratio: 1%
Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 113.4, 149.4, 137.4, 137.7
Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 52.7, 142.5, 65.5, 63.5
Luminaire Efficacy Rating (LER): 152.50 Central Intensity: 1590.78 cd
Max. Intensity: 6929.36 cd Pos of Max. Intensity: H247.5 V62
S/MH(C0/C180): 1.50 S/MH(C90/C270): 2.00

Termogramma



Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5 Gamma Plane (°):0.0-180.0:1.0
Test Lab: Test Device: LSG-1800B
Test Type: TYPE C Distance: 12.677 m
Temperature: Humidity:
Operator: Inspector:

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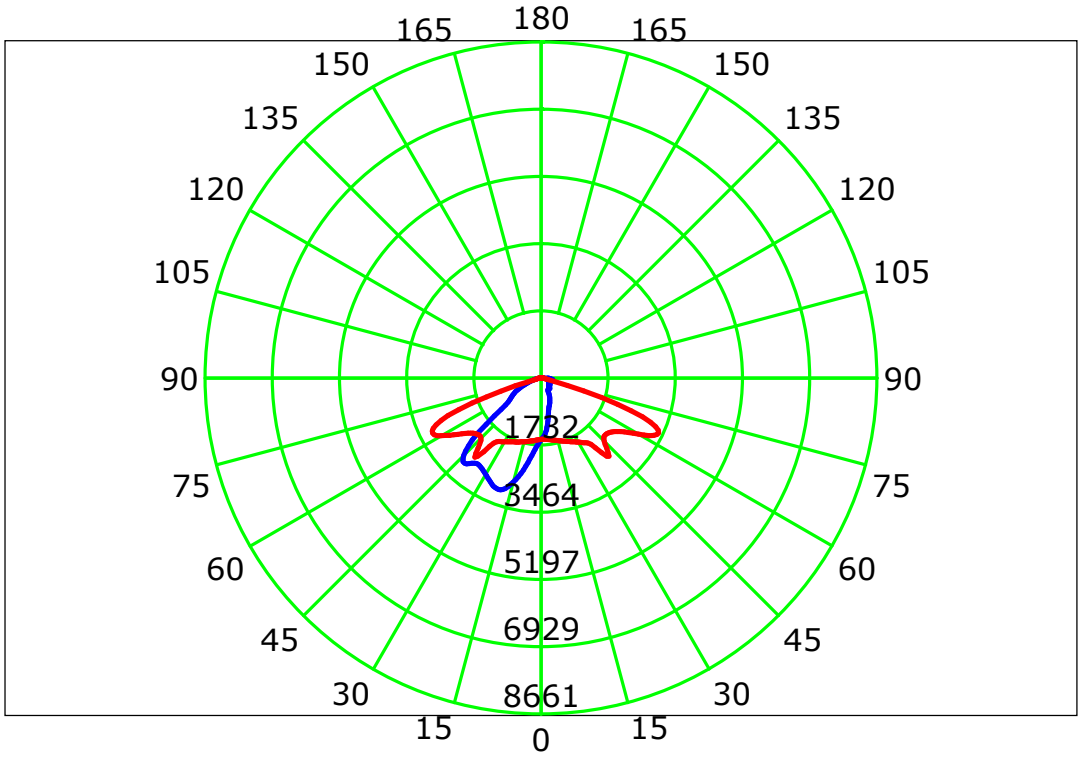
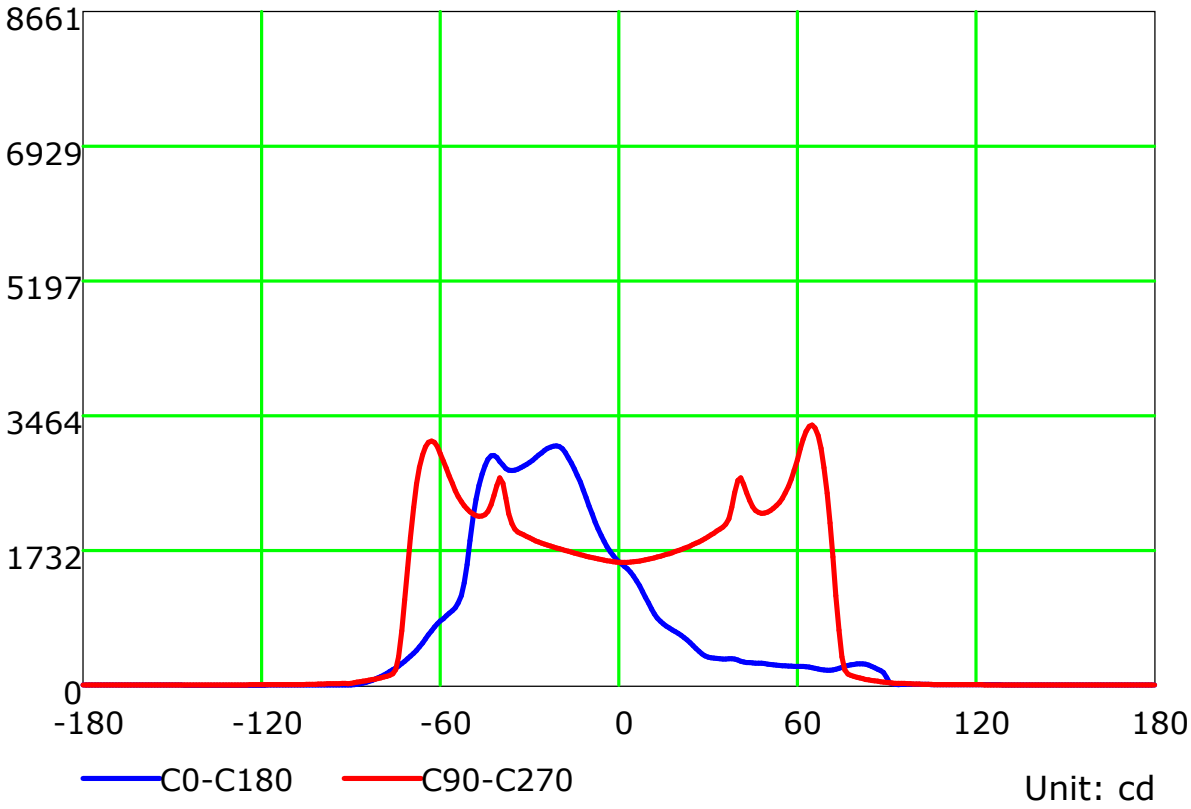
Luminous Intensity Distribution Curve

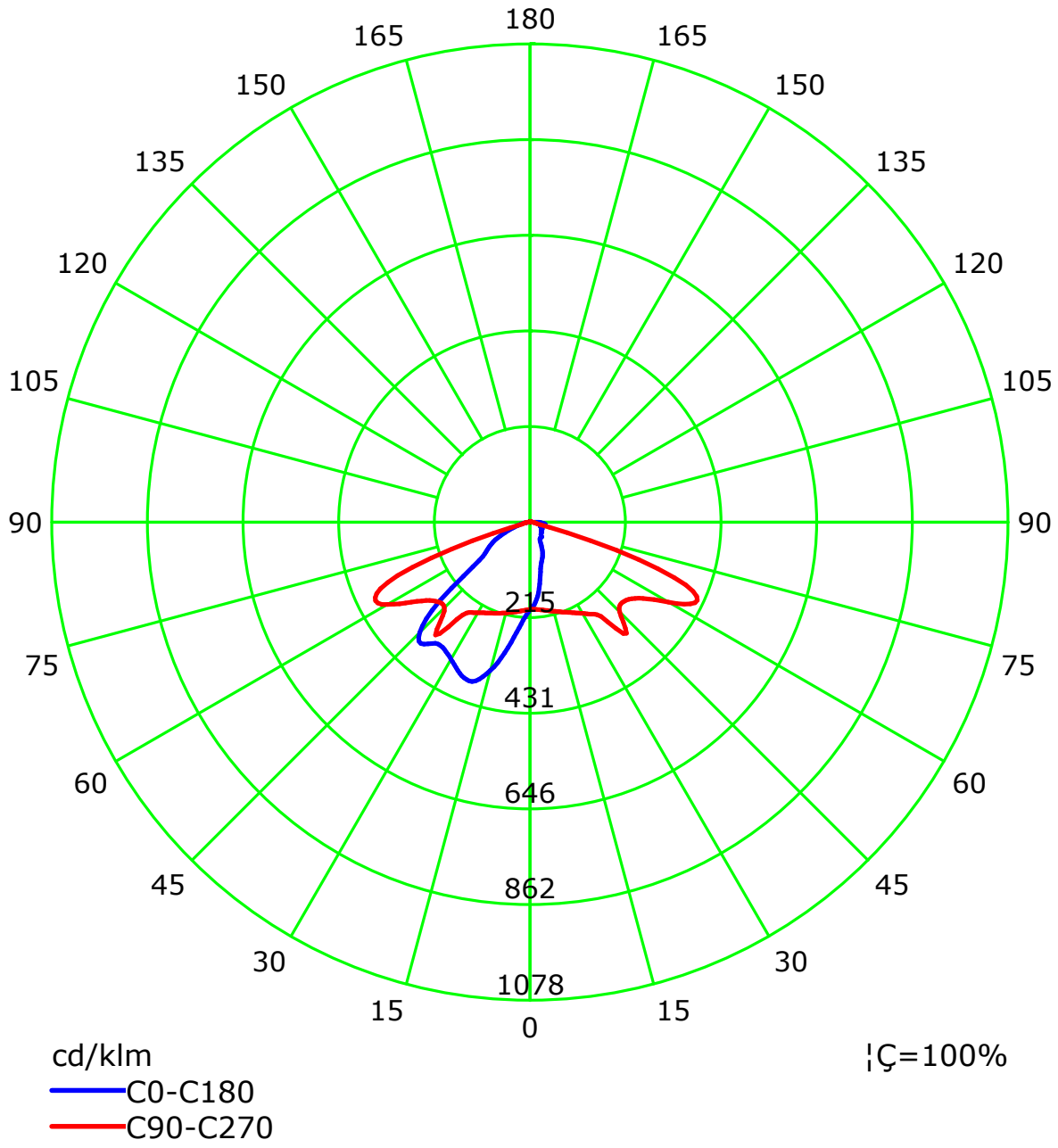




C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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:
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Gamma Plane (°):0.0-180.0:1.0
Test Device: LSG-1800B
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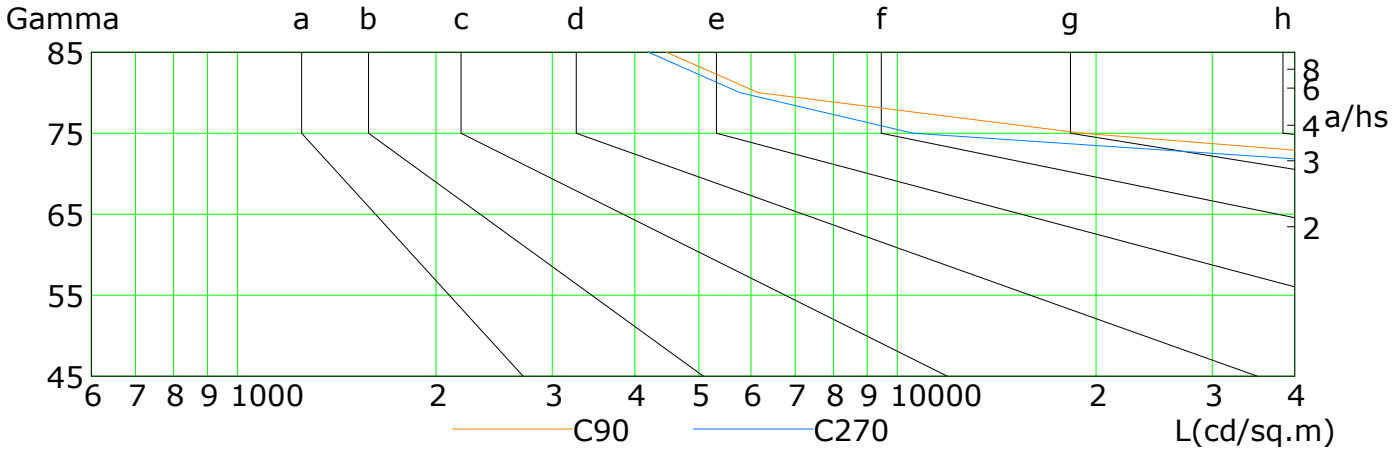
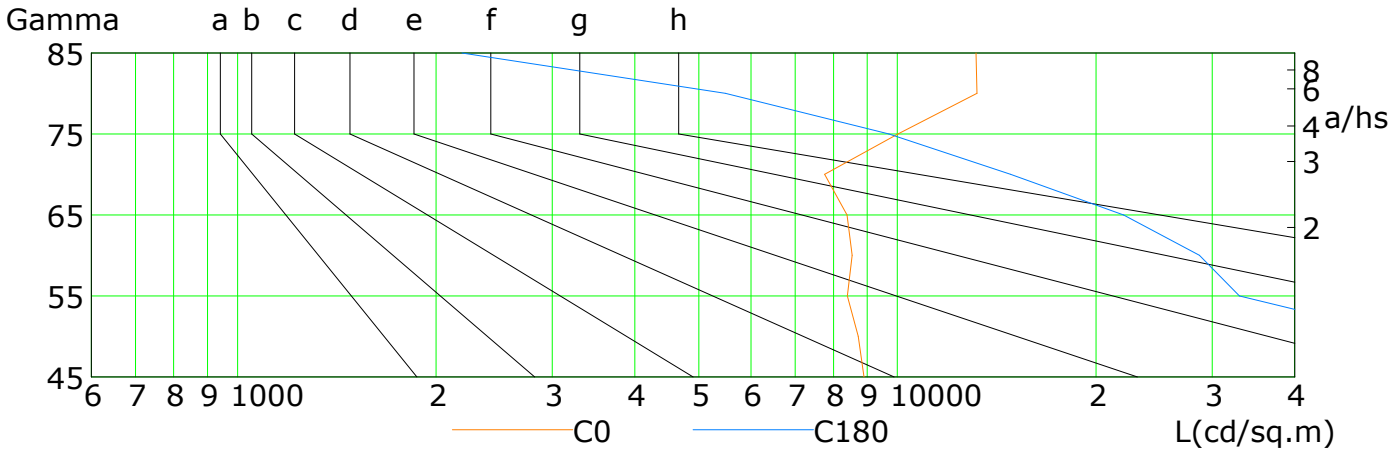
Lum Limit Curve

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	8896	8726	8393	8543	8388	7756	10022	13199	13164
C90	77394	78278	88964	114085	142111	114674	19087	6146	4468
C180	86860	59029	32974	28676	22021	14841	9715	5485	2189
C270	73929	78397	92619	117423	130239	88324	10572	5768	4195

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

Gamma Plane (°):0.0-180.0:1.0
Test Device: LSG-1800B
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Humidity:
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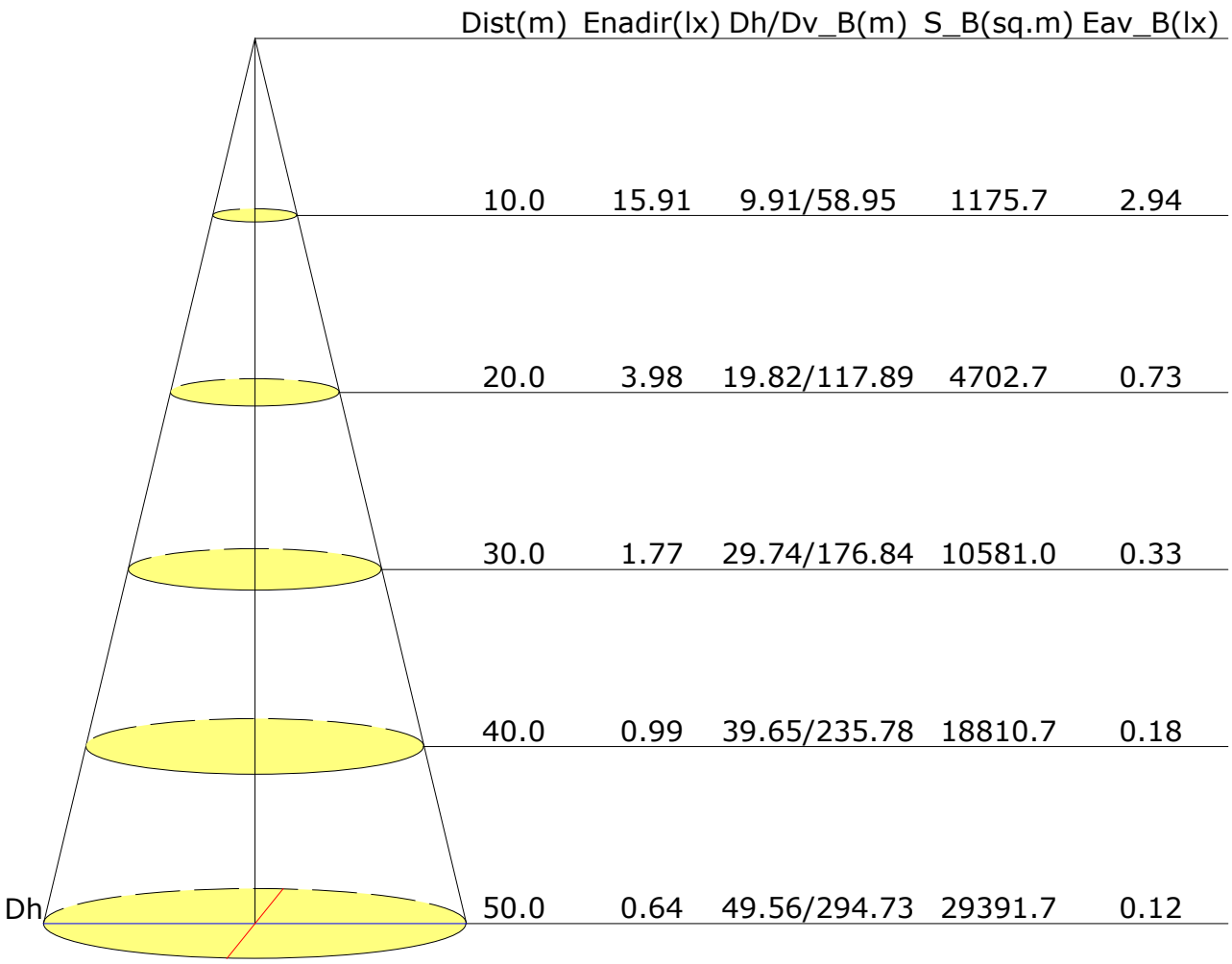
Illuminance at a Distance



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:

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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	14.7	16.2	15.0	16.4	16.7	26.5	28.0	26.8	28.3	28.5
3H	16.4	17.7	16.7	18.0	18.3	30.3	31.6	30.6	31.9	32.2
4H	17.5	18.8	17.9	19.1	19.4	30.5	31.8	30.9	32.1	32.4
6H	19.2	20.4	19.6	20.7	21.0	30.5	31.6	30.8	32.0	32.3
8H	20.1	21.2	20.5	21.6	21.9	30.4	31.5	30.8	31.9	32.2
12H	20.9	22.0	21.3	22.4	22.7	30.4	31.5	30.8	31.8	32.2
X=4H Y=2H	16.1	17.4	16.5	17.7	18.0	26.3	27.6	26.7	27.9	28.2
3H	17.7	18.8	18.1	19.1	19.5	30.2	31.3	30.6	31.7	32.0
4H	18.8	19.8	19.2	20.1	20.5	30.5	31.5	31.0	31.9	32.3
6H	20.4	21.3	20.9	21.7	22.1	30.5	31.4	30.9	31.8	32.2
8H	21.4	22.2	21.9	22.6	23.1	30.5	31.3	30.9	31.7	32.1
12H	22.3	23.1	22.8	23.5	23.9	30.5	31.2	30.9	31.6	32.1
X=8H Y=4H	19.9	20.7	20.4	21.1	21.6	30.5	31.2	30.9	31.7	32.1
6H	21.4	22.1	21.9	22.5	23.0	30.5	31.1	30.9	31.5	32.0
8H	22.4	23.0	22.9	23.4	23.9	30.4	31.0	30.9	31.5	32.0
12H	23.4	23.9	23.9	24.4	24.9	30.4	30.9	30.9	31.4	31.9
X=12H Y=4H	20.0	20.7	20.4	21.1	21.6	30.4	31.1	30.9	31.6	32.0
6H	21.5	22.1	22.0	22.6	23.1	30.4	31.0	30.9	31.5	32.0
8H	22.6	23.0	23.1	23.5	24.0	30.4	30.9	30.9	31.4	31.9
Variations with the observer position at spacings:										
S=1.0H	+0.4/-0.2					+0.5/-0.5				
S=1.5H	+0.6/-0.7					+1.9/-2.9				
S=2.0H	+0.8/-1.4					+3.6/-5.4				

Calculate in accordance with CIE Pub.117. The table is revised with 8034lm (8log(F/F0) = 7.2).

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:

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Utilisation Factor Table(Floor cavity)

Utilisation Factors UF(F)			SHR NOM = 1.75								
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	NA	0.64	0.72	0.78	0.86	0.91	0.94	0.99	1.02
	0.30		NA	0.56	0.64	0.71	0.80	0.85	0.89	0.95	0.98
	0.20		NA	0.50	0.59	0.65	0.75	0.81	0.85	0.91	0.95
0.50	0.50	0.20	NA	0.62	0.69	0.75	0.83	0.87	0.91	0.95	0.98
	0.30		NA	0.55	0.63	0.69	0.78	0.83	0.87	0.92	0.95
	0.20		NA	0.49	0.58	0.64	0.73	0.79	0.83	0.89	0.92
0.30	0.50	0.20	NA	0.60	0.67	0.73	0.80	0.84	0.87	0.91	0.94
	0.30		NA	0.54	0.61	0.67	0.75	0.80	0.84	0.88	0.91
	0.20		NA	0.49	0.57	0.63	0.72	0.77	0.81	0.86	0.89
0.00	0.00	0.00	NA	0.46	0.54	0.60	0.68	0.73	0.77	0.81	0.84

Rating:53W Photometrically tested without ceiling board.

Multiply UF values by service correction factors

Calculate in accordance with CIBSE Technical Memorandum NO.5 1980

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:

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Utilisation Factor Table(Wall)

Utilisation Factors UF(W)			SHR NOM = 1.75								
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	NA	0.84	0.71	0.61	0.48	0.39	0.34	0.26	0.21
	0.30		NA	0.72	0.62	0.54	0.43	0.36	0.31	0.24	0.20
	0.20		NA	0.63	0.55	0.48	0.39	0.33	0.29	0.23	0.19
0.50	0.50	0.20	NA	0.81	0.68	0.58	0.45	0.41	0.32	0.25	0.20
	0.30		NA	0.70	0.60	0.52	0.42	0.35	0.30	0.23	0.19
	0.20		NA	0.62	0.54	0.47	0.38	0.32	0.28	0.22	0.18
0.30	0.50	0.20	NA	0.78	0.65	0.56	0.43	0.36	0.30	0.23	0.19
	0.30		NA	0.69	0.59	0.51	0.40	0.33	0.29	0.22	0.18
	0.20		NA	0.61	0.53	0.46	0.37	0.31	0.27	0.21	0.18
0.00	0.00	0.00	0.98	0.52	0.44	0.38	0.30	0.25	0.21	0.16	0.14

Rating:53W 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 = 1.75								
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	NA	0.18	0.19	0.20	0.20	0.21	0.21	0.22	0.22
	0.30		NA	0.12	0.13	0.14	0.16	0.17	0.18	0.19	0.20
	0.20		NA	0.07	0.08	0.10	0.12	0.13	0.14	0.16	0.17
0.50	0.50	0.20	NA	0.18	0.18	0.19	0.20	0.20	0.20	0.21	0.21
	0.30		NA	0.11	0.13	0.14	0.15	0.16	0.17	0.18	0.19
	0.20		NA	0.07	0.08	0.09	0.11	0.13	0.14	0.16	0.17
0.30	0.50	0.20	NA	0.17	0.18	0.18	0.19	0.19	0.20	0.20	0.20
	0.30		NA	0.11	0.12	0.13	0.15	0.16	0.16	0.18	0.18
	0.20		NA	0.07	0.08	0.09	0.11	0.13	0.14	0.15	0.16
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:53W Photometrically tested without ceiling board.

Multiply UF values by service correction factors

Calculate in accordance with CIBSE Technical Memorandum NO.5 1980

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: