

Report No.: 1

Test Time: 06.12.2019 19:25

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FP 150 HE 4x28LED 3.4A 150W

Luminous Length (mm): 604

Luminous Width (mm): 153

Luminous Height (mm): 80

Voltage: 221.3 V

Current: 0.705 A

Power: 152.66 W

Power Factor: 0.977

Photometric Results

CIE Class: Direct

Measurement Flux: 21765.8 lm

Downward Ratio: 99%

Total Rated Lamp Lumens: 21765.8 lm

Efficiency: 100%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 117.3, 149.0, 137.4, 133.4

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 55.0, 140.8, 65.0, 68.5

Luminaire Efficacy Rating (LER): 142.63

Central Intensity: 3855.64 cd

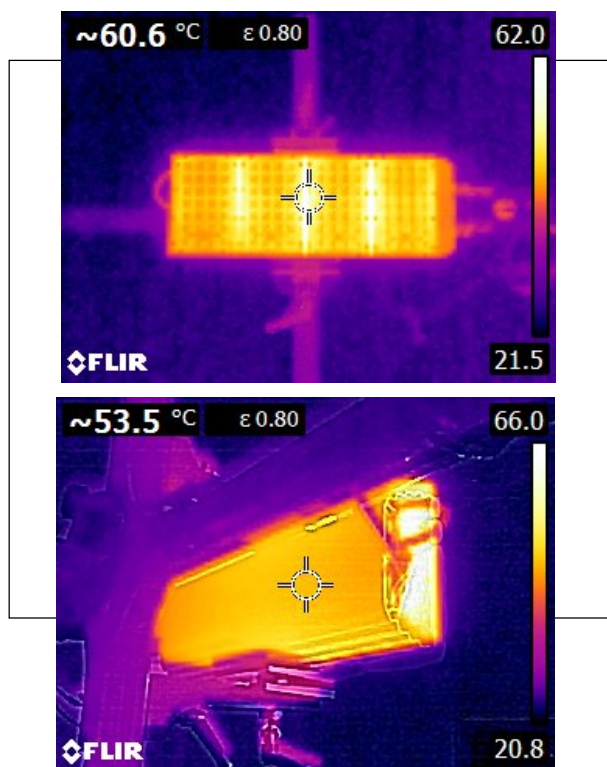
Max. Intensity: 16964.84 cd

Pos of Max. Intensity: H112.5 V61

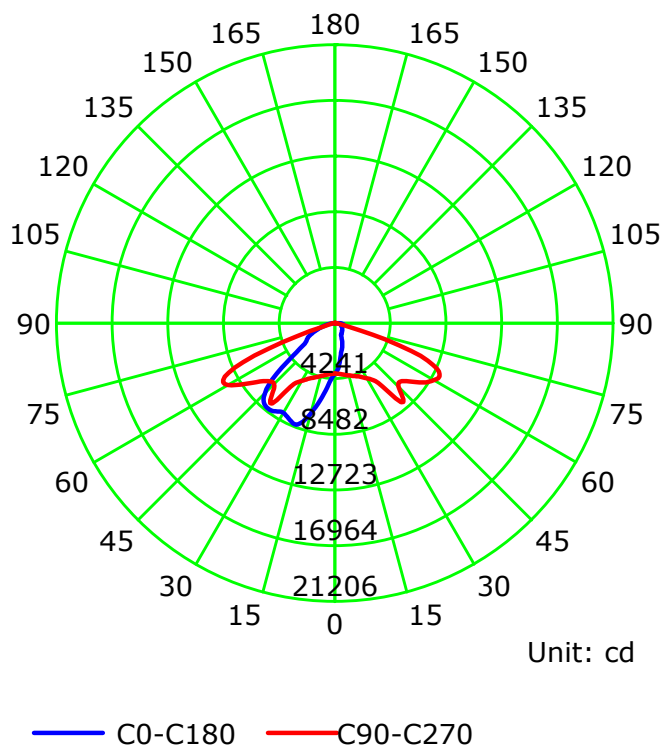
S/MH(C0/C180): 1.74

S/MH(C90/C270): 2.28

Termogramma



Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

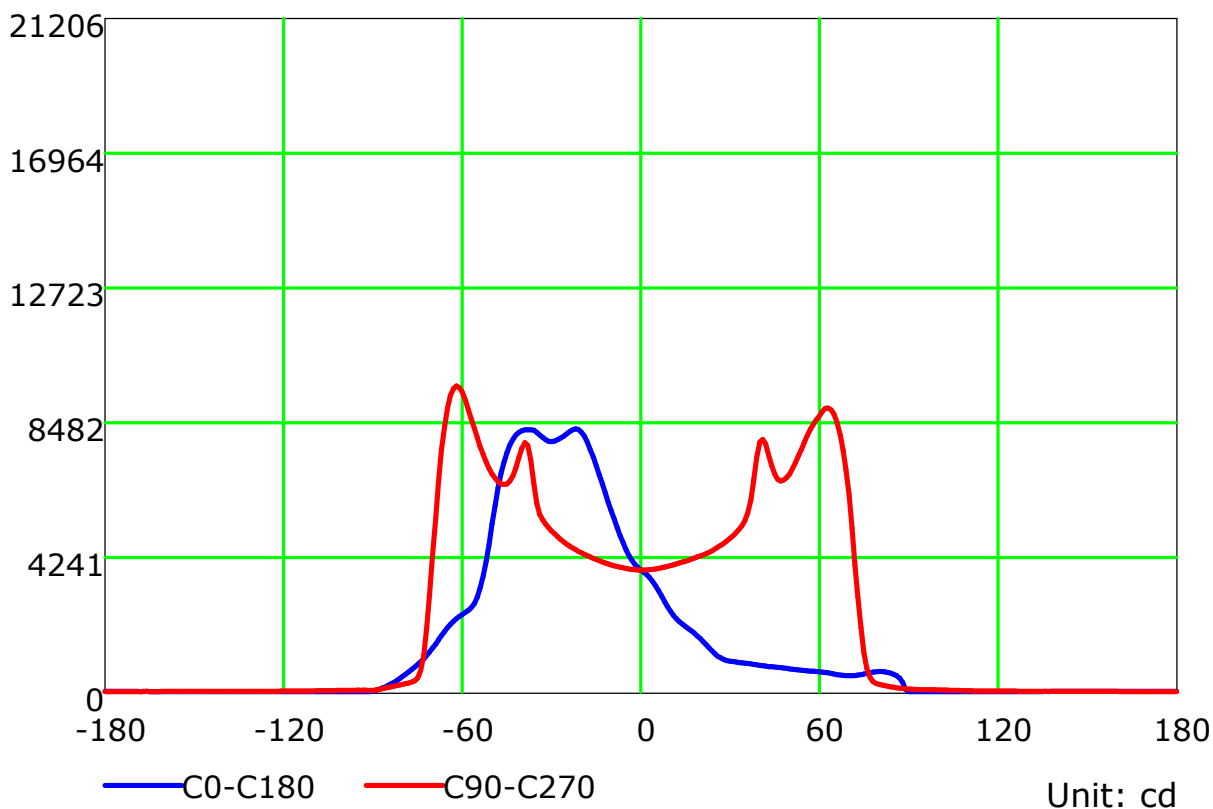
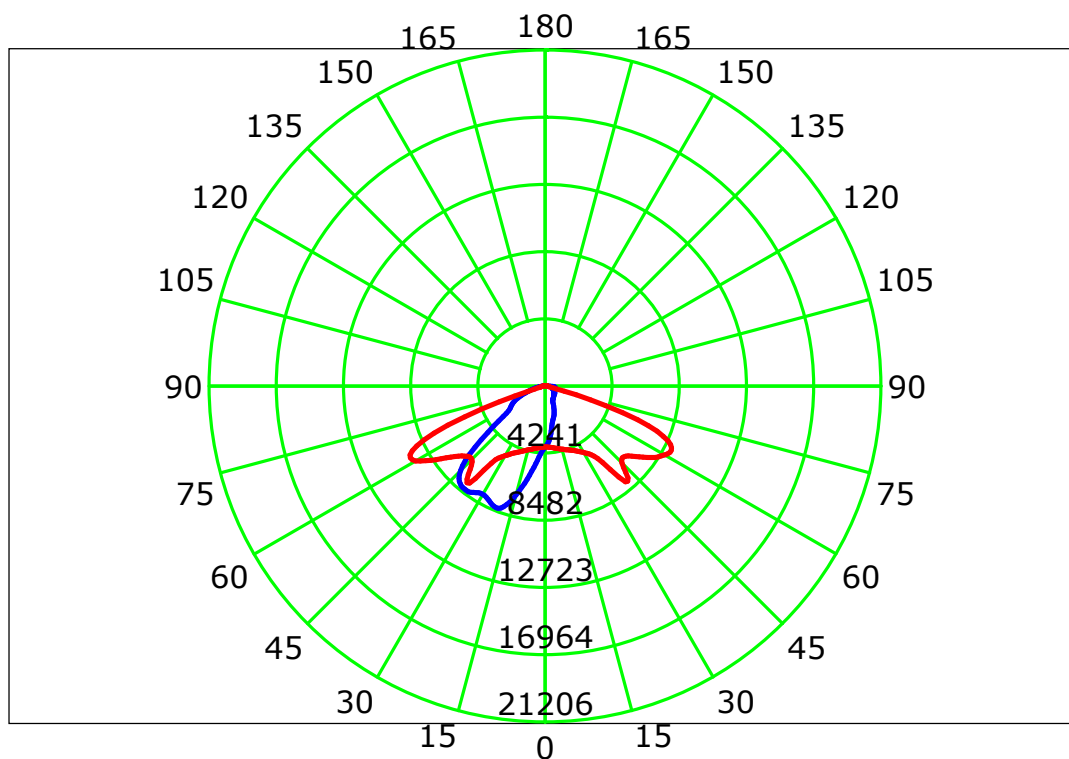
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

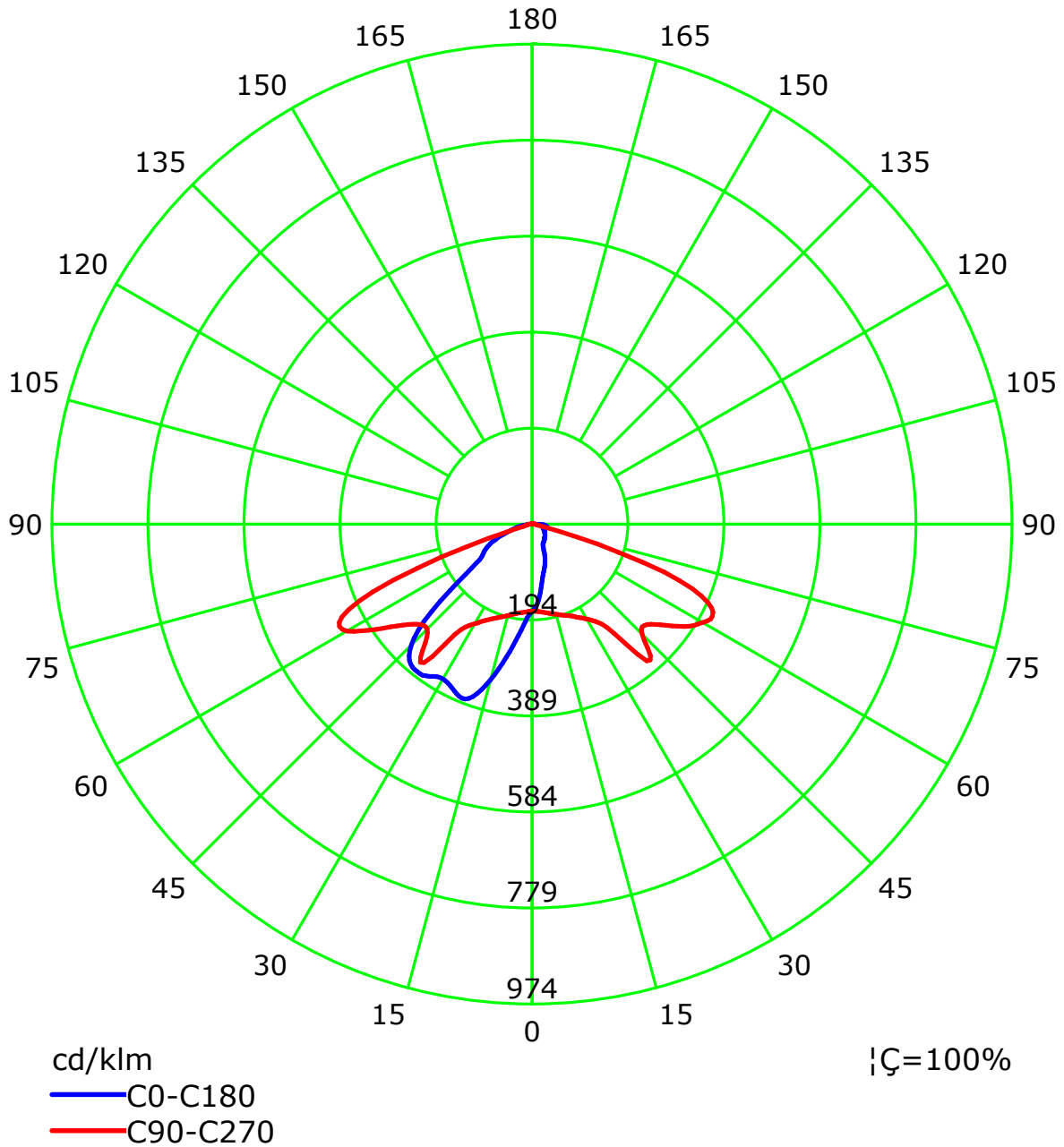
Luminous Intensity Distribution Curve



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)



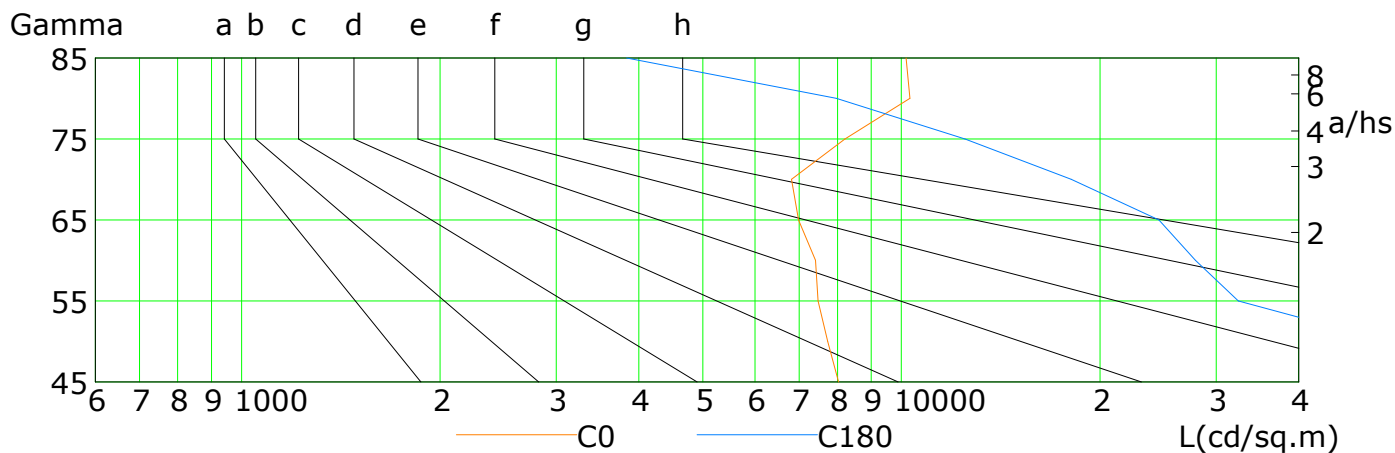
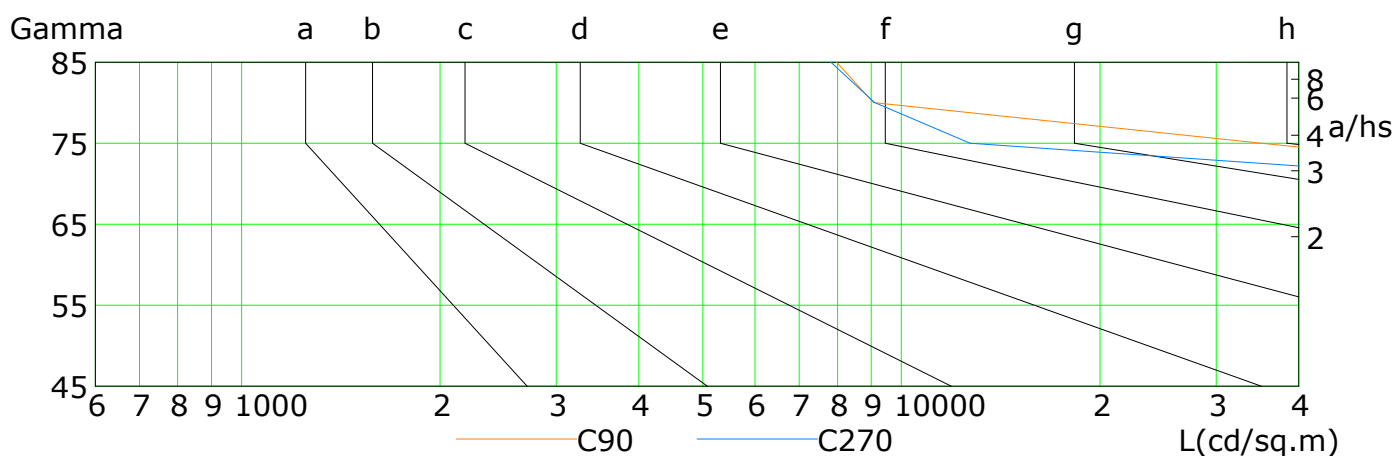
C Plane (°):0.0-360.0: 22.5
Test Lab:
Test Type: TYPE C
Temperature:
Operator:

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

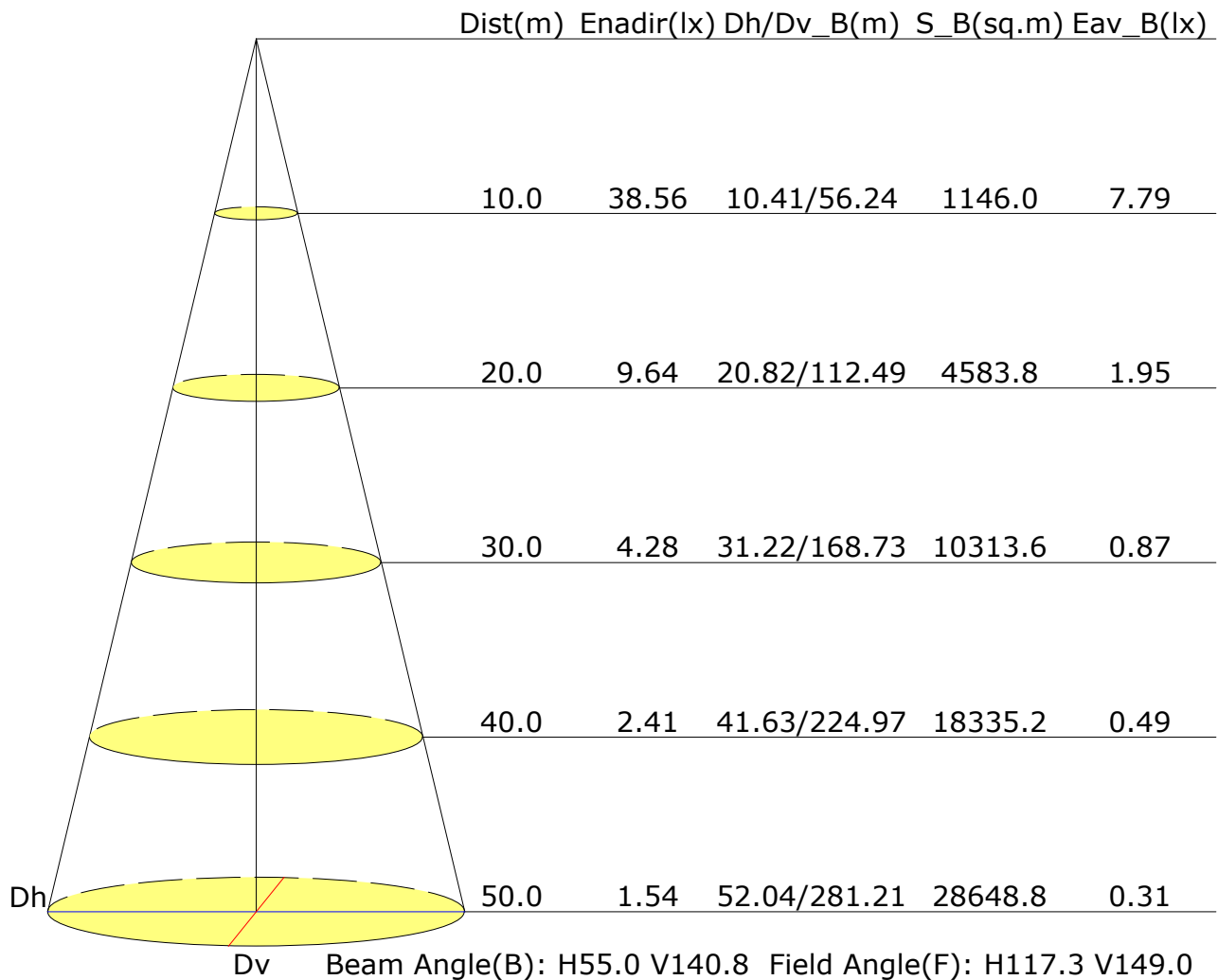


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	8030	7729	7479	7412	6981	6817	8210	10298	10167
C90	93005	100024	124884	153193	174520	144137	35159	9074	7978
C180	75858	54866	32392	27903	24575	18085	12485	7972	3835
C270	88679	99977	127320	166467	178305	99499	12710	9116	7818

C Plane (°):0.0-360.0: 22.5
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 Temperature:
 Operator:

Gamma Plane (°):0.0-180.0:1.0
 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	14.3	15.8	14.6	16.0	16.3	27.8	29.3	28.1	29.5	29.8
3H	16.0	17.3	16.3	17.6	17.9	31.1	32.5	31.5	32.8	33.1
4H	17.0	18.3	17.4	18.6	18.9	31.3	32.6	31.7	32.9	33.2
6H	18.4	19.6	18.8	19.9	20.3	31.3	32.4	31.6	32.8	33.1
8H	19.2	20.3	19.6	20.7	21.0	31.2	32.4	31.6	32.7	33.1
12H	19.9	21.0	20.3	21.4	21.7	31.2	32.3	31.6	32.6	33.0
X=4H Y=2H	16.1	17.4	16.5	17.7	18.0	27.6	28.9	28.0	29.2	29.5
3H	17.6	18.6	18.0	19.0	19.4	31.1	32.1	31.5	32.5	32.9
4H	18.5	19.5	18.9	19.9	20.3	31.3	32.3	31.7	32.6	33.0
6H	19.9	20.7	20.3	21.1	21.5	31.3	32.1	31.7	32.5	32.9
8H	20.6	21.4	21.1	21.8	22.3	31.2	32.0	31.7	32.4	32.9
12H	21.4	22.1	21.9	22.6	23.0	31.2	31.9	31.7	32.4	32.8
X=8H Y=4H	19.8	20.6	20.3	21.0	21.5	31.2	32.0	31.7	32.4	32.9
6H	21.0	21.6	21.5	22.1	22.6	31.2	31.8	31.7	32.3	32.8
8H	21.7	22.3	22.2	22.8	23.3	31.2	31.7	31.7	32.2	32.7
12H	22.5	23.0	23.0	23.5	24.0	31.2	31.6	31.7	32.1	32.7
X=12H Y=4H	19.9	20.6	20.3	21.0	21.5	31.2	31.9	31.7	32.3	32.8
6H	21.1	21.7	21.6	22.1	22.6	31.2	31.7	31.7	32.2	32.7
8H	21.9	22.3	22.4	22.8	23.4	31.2	31.6	31.7	32.1	32.7
Variations with the observer position at spacings:										
S=1.0H	+0.4/-0.3					+0.6/-0.7				
S=1.5H	+0.9/-0.9					+2.3/-3.4				
S=2.0H	+1.0/-1.6					+4.1/-5.6				

Calculate in accordance with CIE Pub.117. The table is revised with 21766lm ($8\log(F/F_0) = 10.7$).

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:

Utilisation Factor Table(Floor cavity)

Utilisation Factors UF(F)			SHR NOM = 2.00									
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	0.67	0.73	0.79	0.87	0.92	0.95	1.00	1.03	
	0.30		NA	0.60	0.66	0.72	0.81	0.87	0.91	0.96	0.99	
	0.20		NA	0.54	0.60	0.67	0.76	0.82	0.87	0.92	0.96	
0.50	0.50	0.20	NA	0.65	0.71	0.76	0.84	0.89	0.92	0.96	0.98	
	0.30		NA	0.58	0.65	0.70	0.79	0.84	0.88	0.93	0.95	
	0.20		NA	0.53	0.60	0.66	0.75	0.80	0.84	0.90	0.93	
0.30	0.50	0.20	NA	0.63	0.69	0.74	0.81	0.85	0.88	0.92	0.94	
	0.30		NA	0.57	0.63	0.69	0.77	0.82	0.85	0.89	0.92	
	0.20		NA	0.53	0.59	0.65	0.73	0.78	0.82	0.87	0.90	
0.00	0.00	0.00	NA	0.50	0.56	0.61	0.70	0.75	0.78	0.82	0.85	
Rating:153W 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 = 2.00									
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	0.80	0.69	0.59	0.46	0.38	0.32	0.25	0.20	
	0.30		NA	0.68	0.60	0.53	0.42	0.35	0.30	0.24	0.19	
	0.20		NA	0.60	0.53	0.47	0.38	0.32	0.28	0.22	0.19	
0.50	0.50	0.20	NA	0.77	0.66	0.57	0.44	0.39	0.31	0.24	0.19	
	0.30		NA	0.66	0.58	0.51	0.40	0.33	0.29	0.22	0.19	
	0.20		NA	0.59	0.52	0.46	0.37	0.31	0.27	0.21	0.18	
0.30	0.50	0.20	NA	0.73	0.63	0.54	0.42	0.34	0.29	0.23	0.18	
	0.30		NA	0.65	0.57	0.49	0.39	0.32	0.28	0.22	0.18	
	0.20		NA	0.58	0.51	0.45	0.36	0.30	0.26	0.21	0.17	
0.00	0.00	0.00	0.98	0.48	0.42	0.36	0.28	0.23	0.20	0.16	0.13	
Rating:153W 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 = 2.00									
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	0.21	0.21	0.22	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	0.09	0.10	0.12	0.14	0.15	0.17	0.18	
0.50	0.50	0.20	NA	0.18	0.19	0.19	0.20	0.20	0.21	0.21	0.21	
	0.30		NA	0.12	0.13	0.14	0.15	0.17	0.17	0.19	0.19	
	0.20		NA	0.07	0.09	0.10	0.12	0.13	0.15	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	0.21	
	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	0.10	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:153W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												