

Report No.: 1

Test Time: 05.12.2019 13:12

## Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FP 150 HE 4x28LED 2.85A 125W

Luminous Length (mm): 604

Luminous Width (mm): 153

Luminous Height (mm): 80

Voltage: 221.3 V

Current: 0.566 A

Power: 123.68 W

Power Factor: 0.986

## Photometric Results

CIE Class: Direct

Measurement Flux: 18611.9 lm

Downward Ratio: 99%

Total Rated Lamp Lumens: 18611.9 lm

Efficiency: 100%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 147.6, 137.7, 138.4, 139.4

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 138.1, 53.1, 62.2, 60.2

Luminaire Efficacy Rating (LER): 150.53

Central Intensity: 3826.17 cd

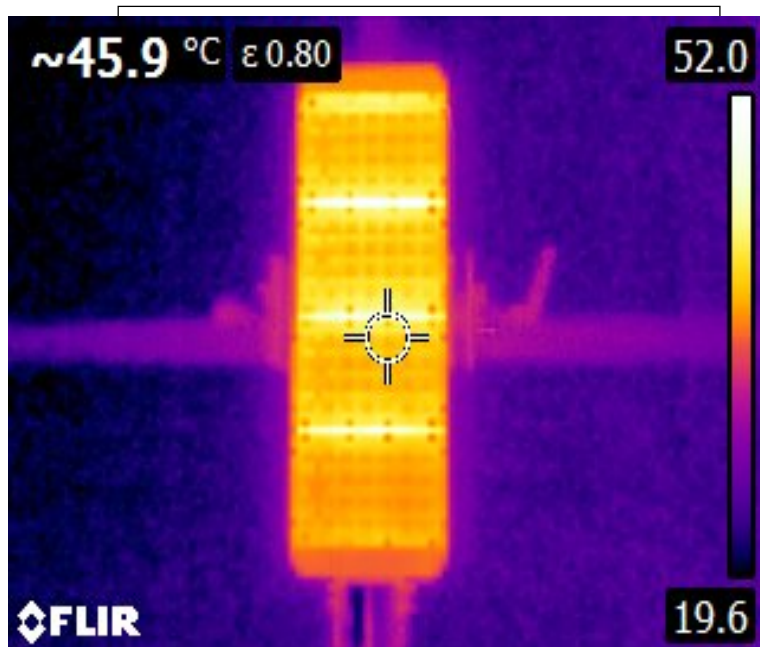
Max. Intensity: 14836.58 cd

Pos of Max. Intensity: H202.5 V60

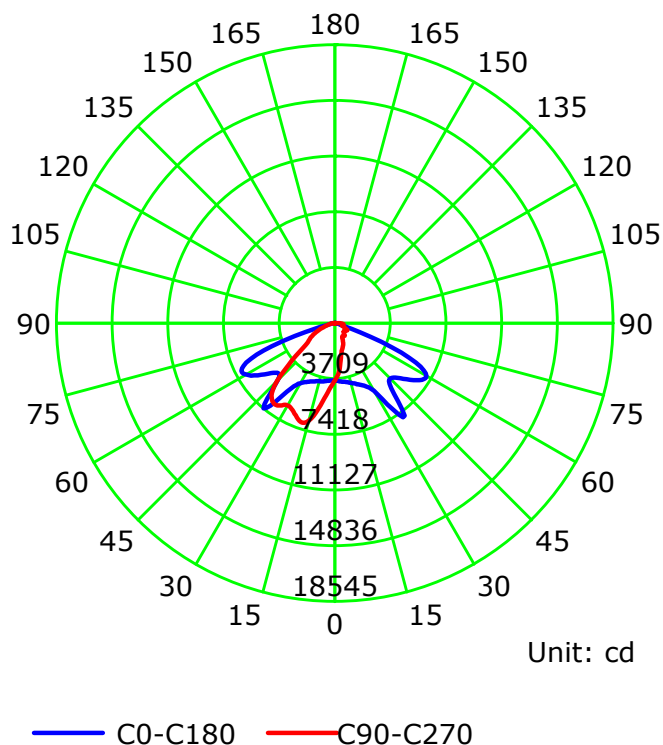
S/MH(C0/C180): 1.98

S/MH(C90/C270): 1.56

Picture Of Luminaire



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

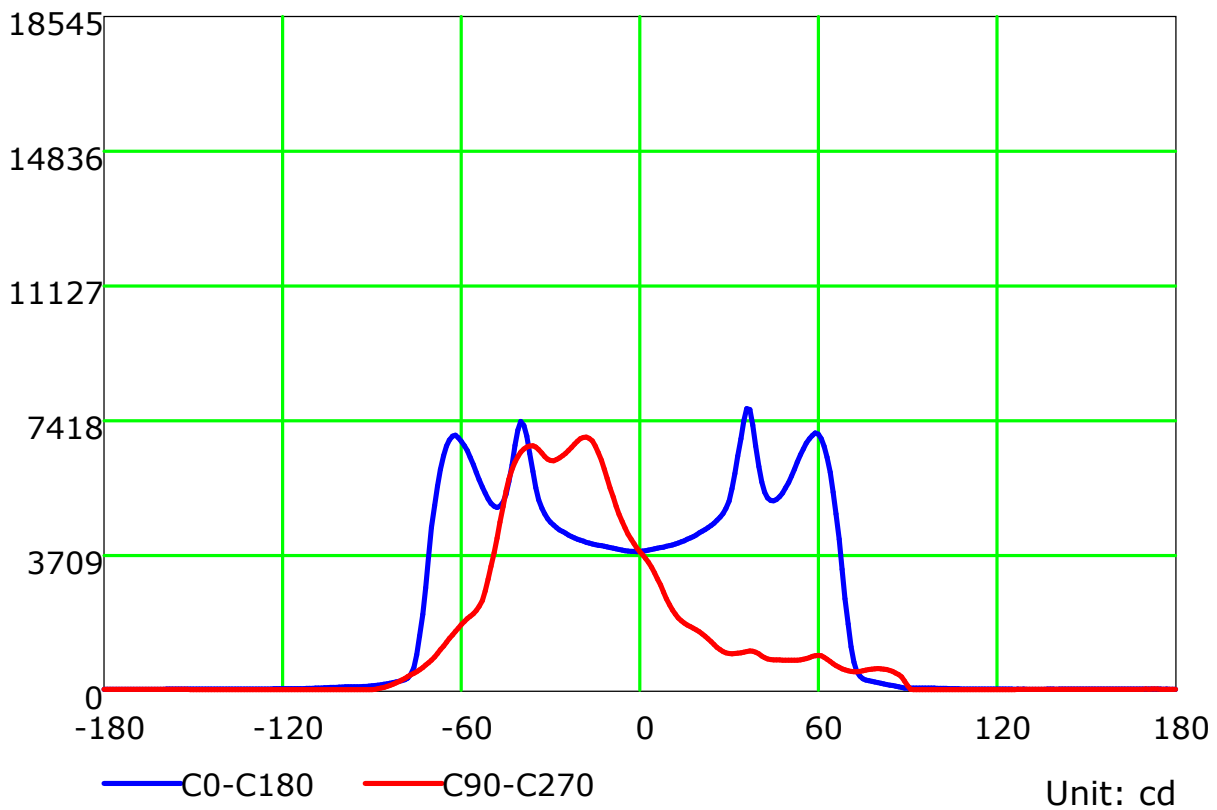
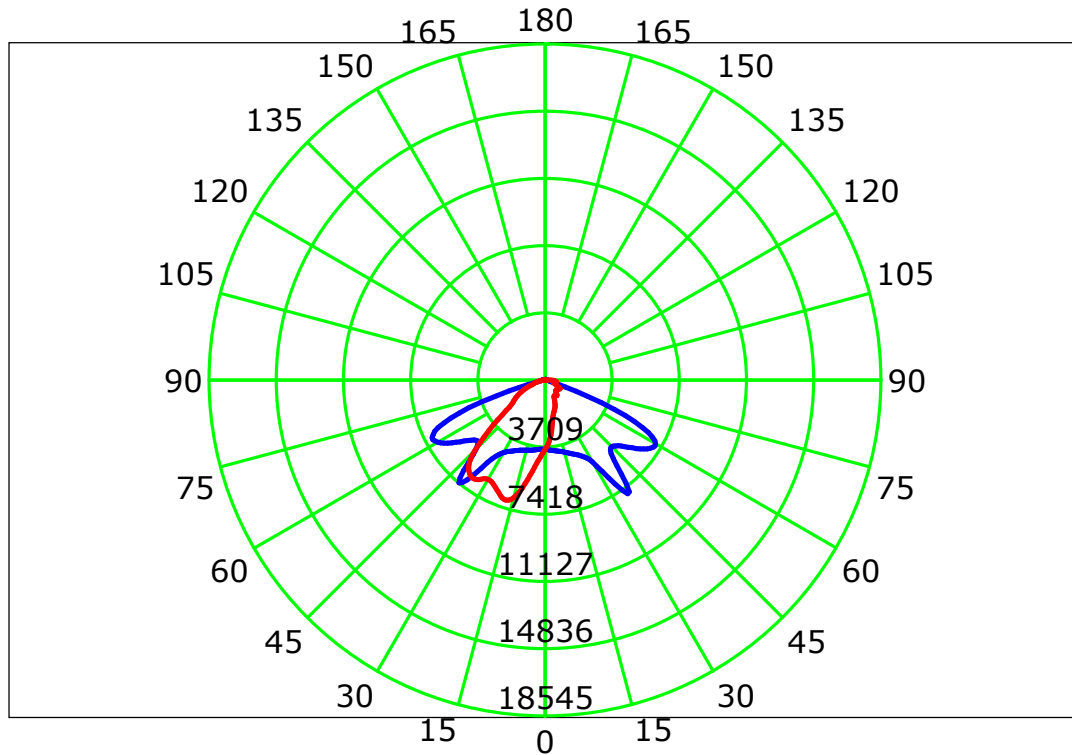
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

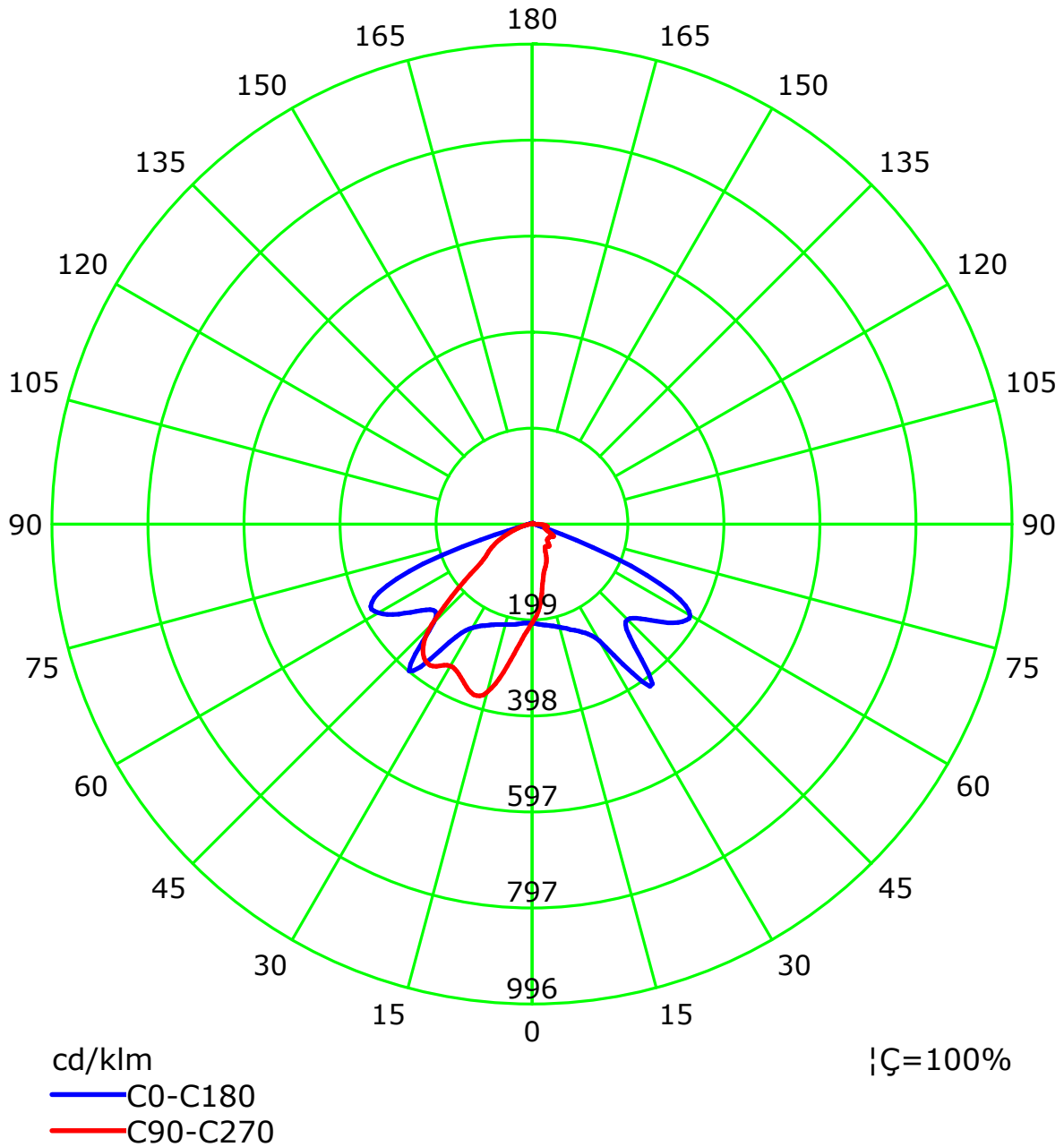
## Luminous Intensity Distribution Curve



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)



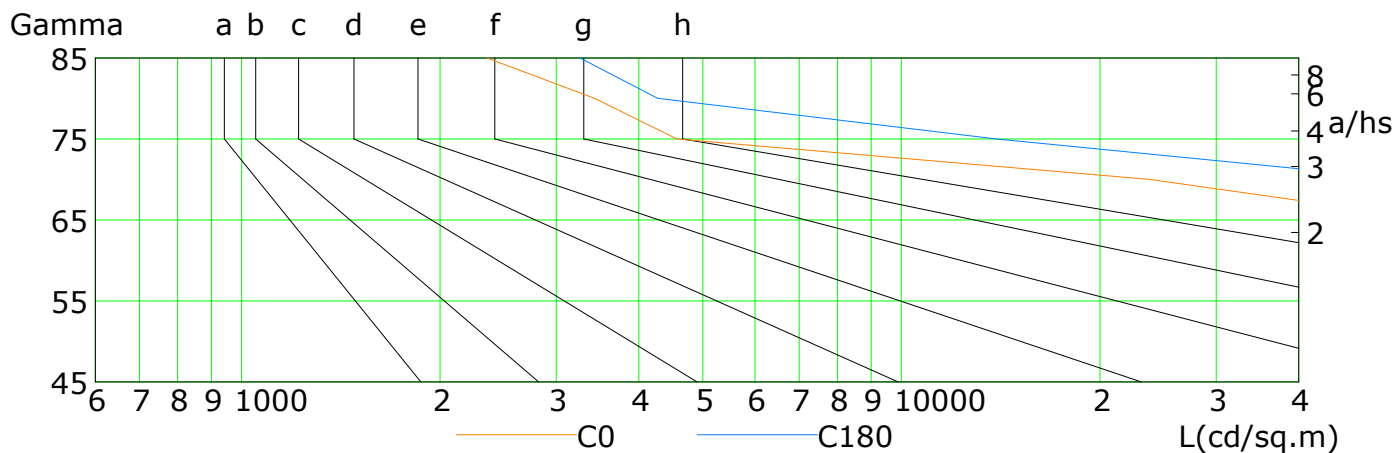
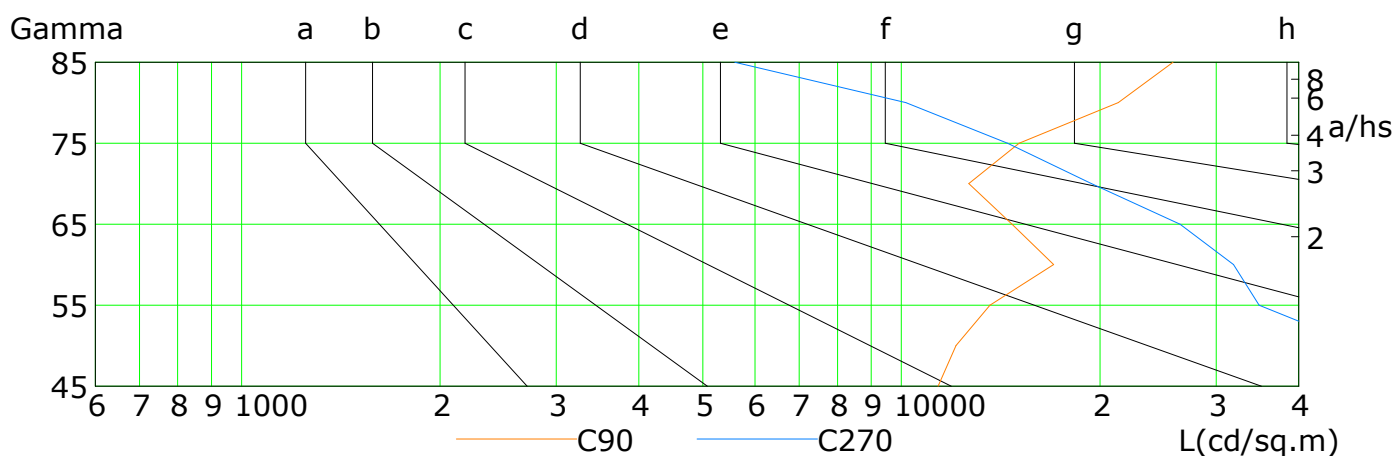
C Plane (°):0.0-360.0: 22.5  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

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

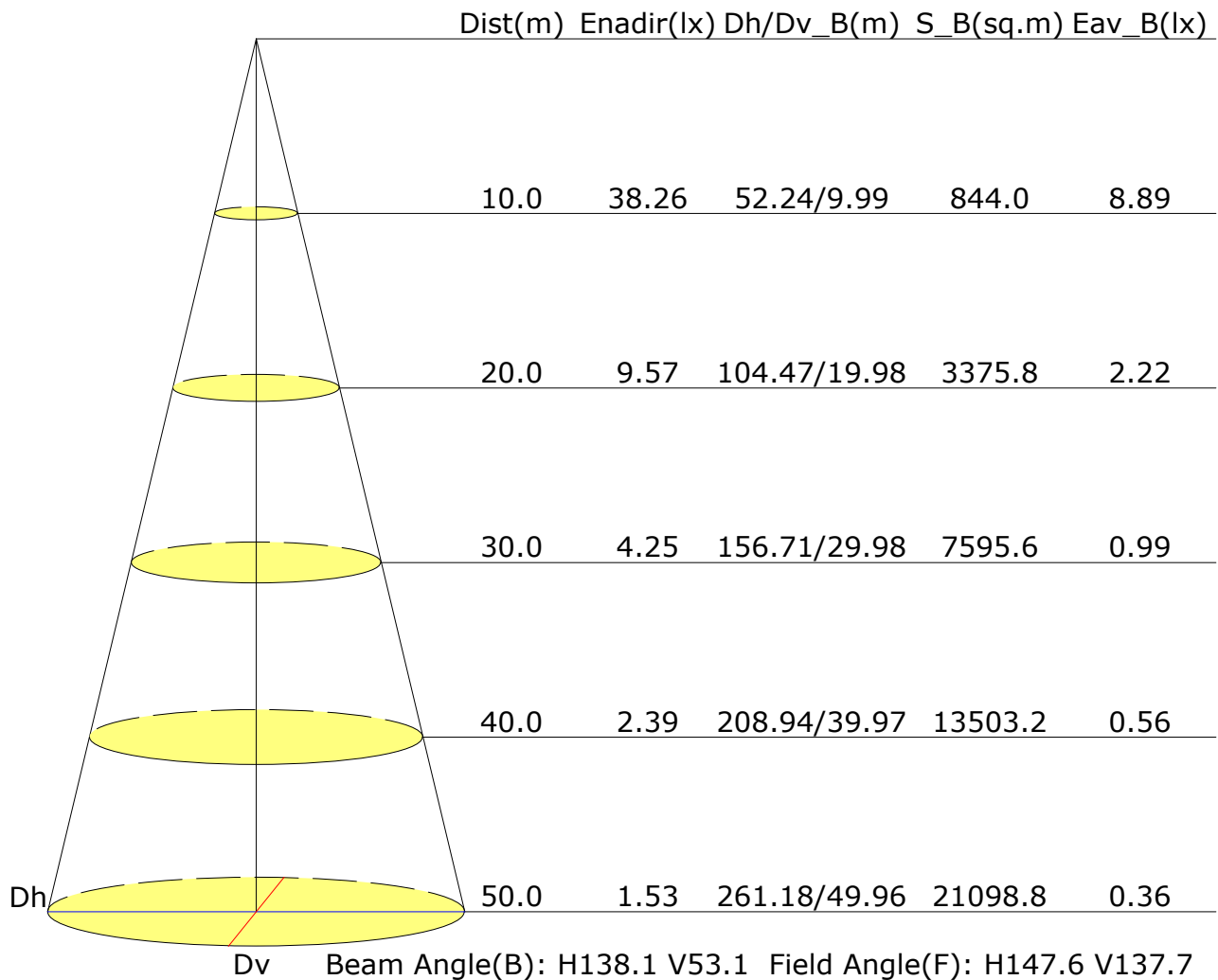


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	52431	59315	71816	80121	65895	23716	4568	3428	2355
C90	11361	12099	13623	17005	14713	12657	15077	21326	25798
C180	54232	53405	64821	77888	81183	58275	13939	4271	3258
C270	74104	49639	34836	31861	26445	19413	14491	10154	5590

C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
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 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	31.0	32.5	31.3	32.7	33.0	23.4	24.9	23.7	25.1	25.4
3H	31.8	33.1	32.1	33.4	33.7	23.9	25.2	24.3	25.5	25.8
4H	31.7	32.9	32.1	33.2	33.6	24.1	25.3	24.5	25.6	26.0
6H	31.6	32.8	32.0	33.1	33.4	24.3	25.5	24.7	25.8	26.1
8H	31.6	32.7	32.0	33.0	33.4	24.5	25.6	24.9	25.9	26.3
12H	31.5	32.6	31.9	32.9	33.3	24.7	25.7	25.1	26.1	26.4
X=4H Y=2H	30.9	32.2	31.3	32.5	32.8	24.8	26.1	25.2	26.4	26.7
3H	31.8	32.8	32.2	33.2	33.5	25.2	26.3	25.7	26.7	27.0
4H	31.7	32.7	32.1	33.0	33.4	25.4	26.4	25.8	26.7	27.1
6H	31.7	32.5	32.1	32.9	33.3	25.6	26.5	26.1	26.9	27.3
8H	31.6	32.4	32.1	32.8	33.3	25.8	26.6	26.3	27.0	27.4
12H	31.6	32.3	32.1	32.7	33.2	26.0	26.7	26.5	27.1	27.6
X=8H Y=4H	31.6	32.4	32.1	32.8	33.3	25.6	26.4	26.1	26.8	27.3
6H	31.6	32.2	32.1	32.7	33.2	25.9	26.5	26.4	27.0	27.5
8H	31.6	32.1	32.1	32.6	33.1	26.1	26.6	26.6	27.1	27.6
12H	31.6	32.0	32.1	32.5	33.1	26.4	26.8	26.9	27.3	27.9
X=12H Y=4H	31.6	32.3	32.1	32.7	33.2	25.6	26.3	26.1	26.7	27.2
6H	31.6	32.1	32.1	32.6	33.1	25.9	26.5	26.4	26.9	27.4
8H	31.6	32.0	32.1	32.5	33.1	26.1	26.6	26.6	27.1	27.6
Variations with the observer position at spacings:										
S=1.0H	+1.0/-1.0					+1.2/-2.1				
S=1.5H	+2.5/-3.2					+2.4/-2.8				
S=2.0H	+3.2/-5.1					+3.4/-3.8				

Calculate in accordance with CIE Pub.117. The table is revised with  $18612lm$  ( $8\log(F/F_0) = 10.2$ ).

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:

## 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	0.67	0.74	0.80	0.88	0.93	0.96	1.01	1.03	
	0.30		NA	0.59	0.67	0.73	0.82	0.88	0.91	0.97	1.00	
	0.20		NA	0.53	0.61	0.68	0.77	0.83	0.87	0.93	0.97	
0.50	0.50	0.20	NA	0.64	0.72	0.77	0.85	0.89	0.92	0.96	0.99	
	0.30		NA	0.58	0.66	0.72	0.80	0.85	0.88	0.93	0.96	
	0.20		NA	0.53	0.61	0.67	0.75	0.81	0.85	0.90	0.94	
0.30	0.50	0.20	NA	0.62	0.69	0.75	0.82	0.86	0.89	0.93	0.95	
	0.30		NA	0.57	0.64	0.70	0.77	0.82	0.85	0.90	0.93	
	0.20		NA	0.52	0.60	0.66	0.74	0.79	0.83	0.88	0.91	
0.00	0.00	0.00	NA	0.49	0.57	0.63	0.70	0.75	0.78	0.83	0.86	
Rating:124W 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 = 1.75									
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	0.82	0.69	0.59	0.46	0.38	0.33	0.25	0.21	
	0.30		NA	0.70	0.60	0.52	0.42	0.35	0.30	0.24	0.20	
	0.20		NA	0.61	0.53	0.47	0.38	0.32	0.28	0.22	0.19	
0.50	0.50	0.20	NA	0.78	0.66	0.56	0.44	0.40	0.31	0.24	0.19	
	0.30		NA	0.68	0.58	0.51	0.40	0.34	0.29	0.23	0.19	
	0.20		NA	0.60	0.52	0.46	0.37	0.31	0.27	0.21	0.18	
0.30	0.50	0.20	NA	0.75	0.63	0.54	0.42	0.35	0.29	0.23	0.19	
	0.30		NA	0.66	0.57	0.49	0.39	0.32	0.28	0.22	0.18	
	0.20		NA	0.59	0.51	0.45	0.36	0.30	0.26	0.21	0.17	
0.00	0.00	0.00	0.99	0.49	0.42	0.36	0.28	0.24	0.20	0.16	0.13	
Rating:124W 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	0.19	0.19	0.20	0.21	0.21	0.22	0.22	0.23	
	0.30		NA	0.12	0.14	0.15	0.16	0.17	0.18	0.20	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	0.21	0.21	0.21	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	0.16	0.17	
0.30	0.50	0.20	NA	0.17	0.18	0.19	0.19	0.20	0.20	0.21	0.21	
	0.30		NA	0.12	0.13	0.14	0.15	0.16	0.17	0.18	0.19	
	0.20		NA	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	
Rating:124W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980												