

Report No.: 1

Test Time: 19.09.2019 13:52

## Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FD 112 200W 60gr

Luminous Width (mm): 360

Voltage: 221.4 V

Power: 202.05 W

Luminous Length (mm): 360

Luminous Height (mm): 50

Current: 0.934 A

Power Factor: 0.976

## Photometric Results

CIE Class: Direct

Measurement Flux: 29685.2 lm

Downward Ratio: 100%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 100.9, 104.4, 101.8, 101.6

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 63.1, 64.8, 64.1, 64.3

Luminaire Efficacy Rating (LER): 146.97

Max. Intensity: 25705.49 cd

S/MH(C0/C180): 0.98

Total Rated Lamp Lumens: 29685.2 lm

Efficiency: 100%

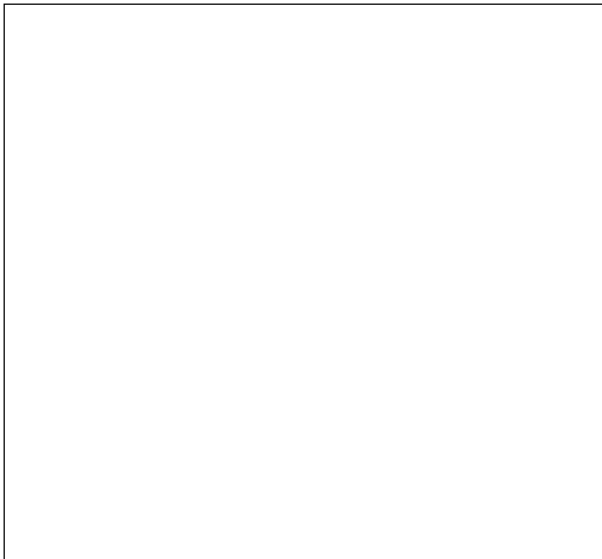
Upward Ratio: 0%

Central Intensity: 25667.75 cd

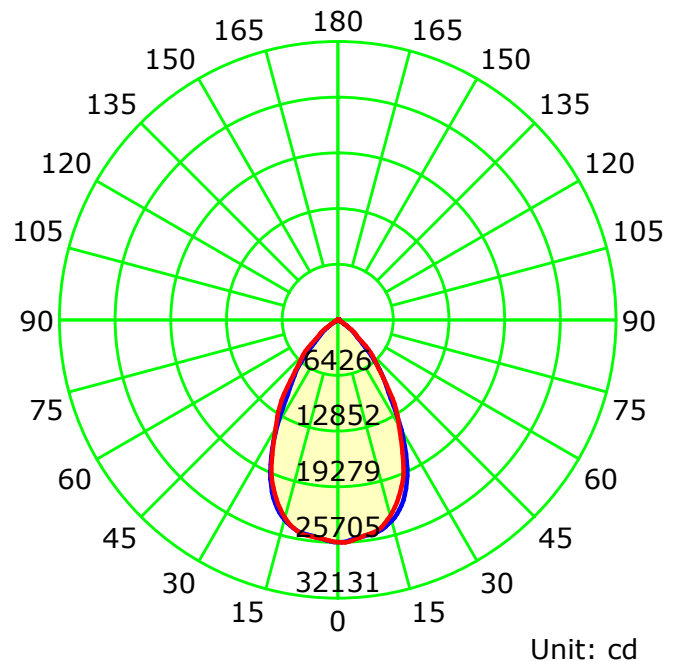
Pos of Max. Intensity: H112.5 V1

S/MH(C90/C270): 0.96

Picture Of Luminaire



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

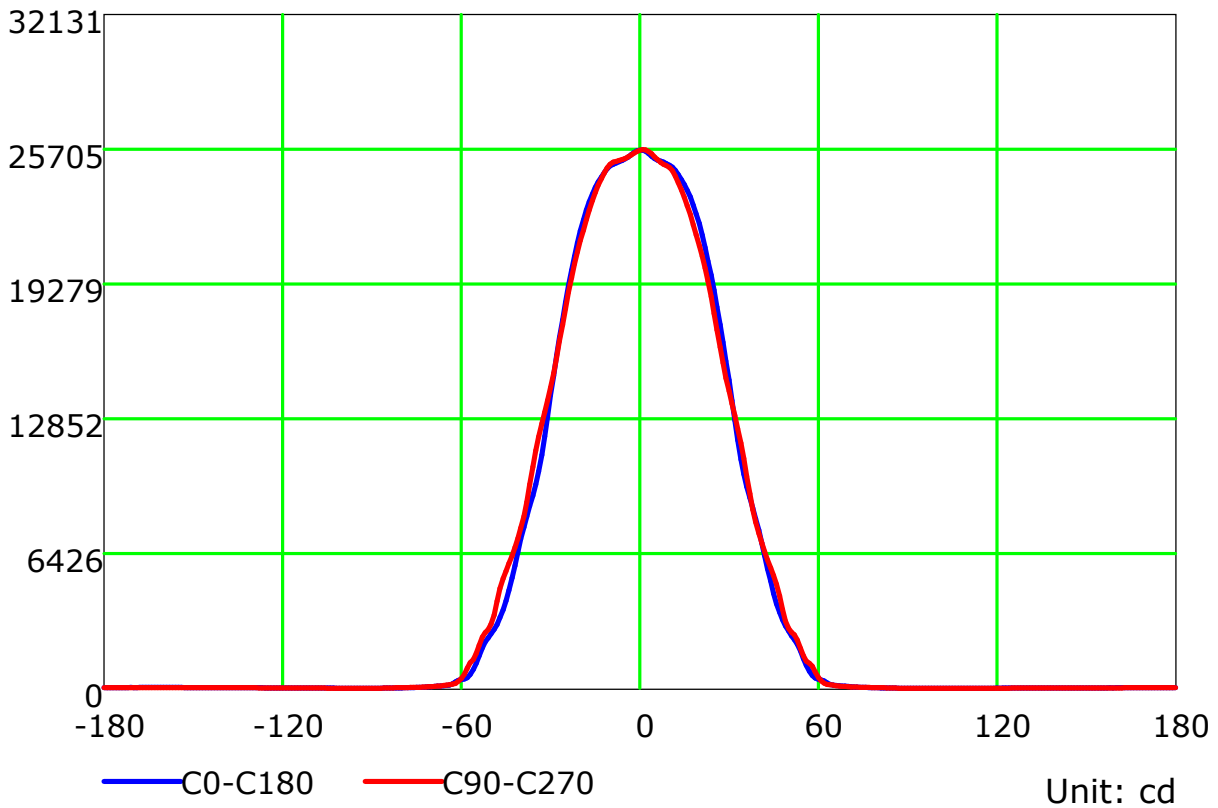
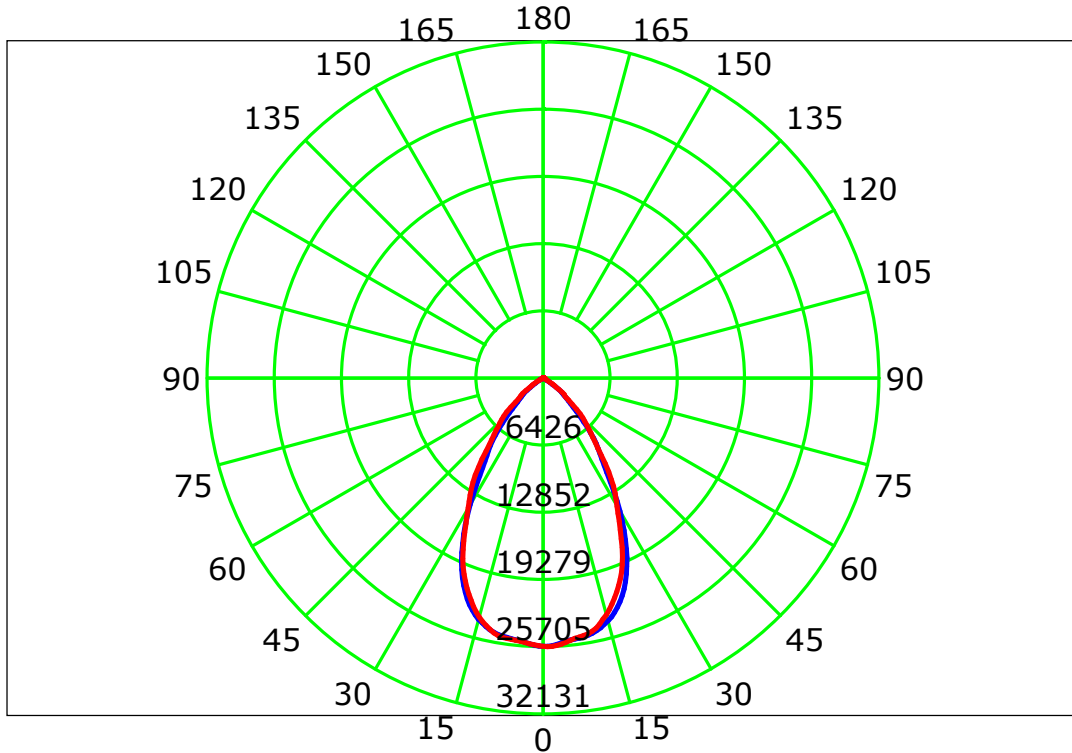
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

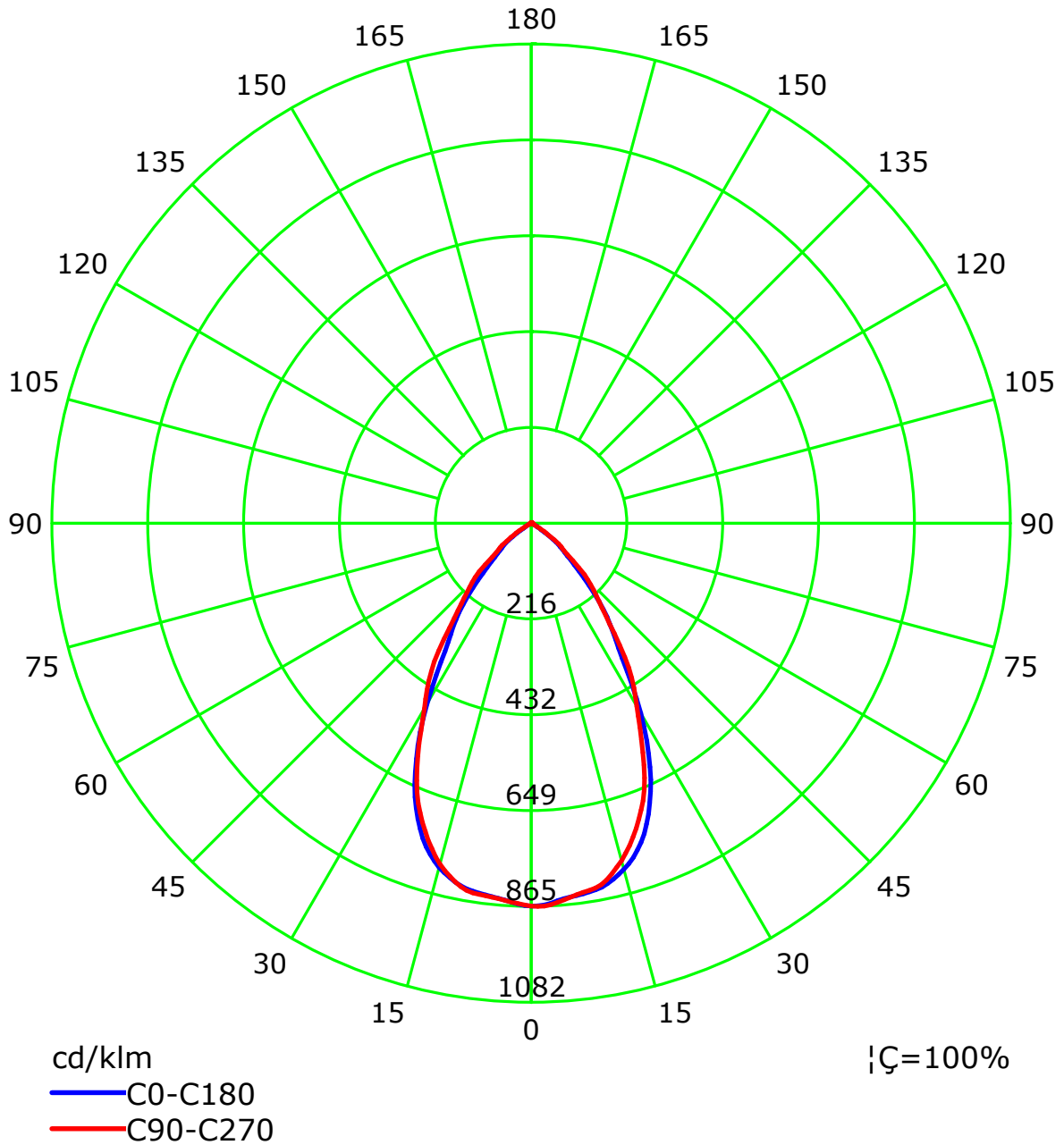
## Luminous Intensity Distribution Curve



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)



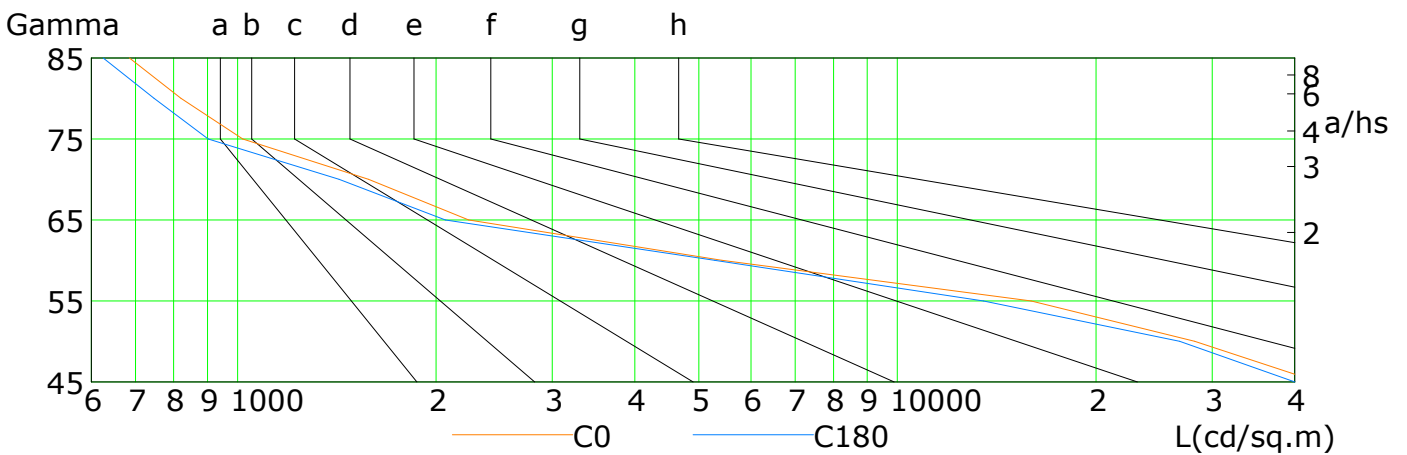
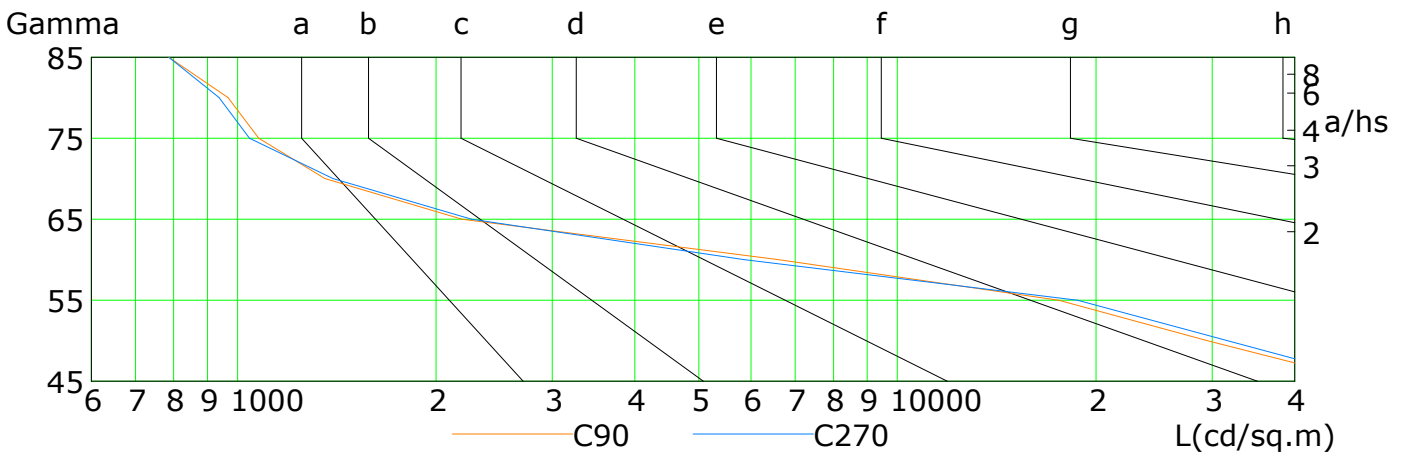
C Plane (°):0.0-360.0: 22.5  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

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)							
		2000	1000	500	<=300				
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	43410	28222	15937	5420	2239	1579	1019	821	686
C90	51612	29425	17545	6593	2189	1357	1077	967	787
C180	40061	26771	13501	5280	2065	1425	903	747	625
C270	53646	31592	18743	5845	2264	1396	1042	938	787

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

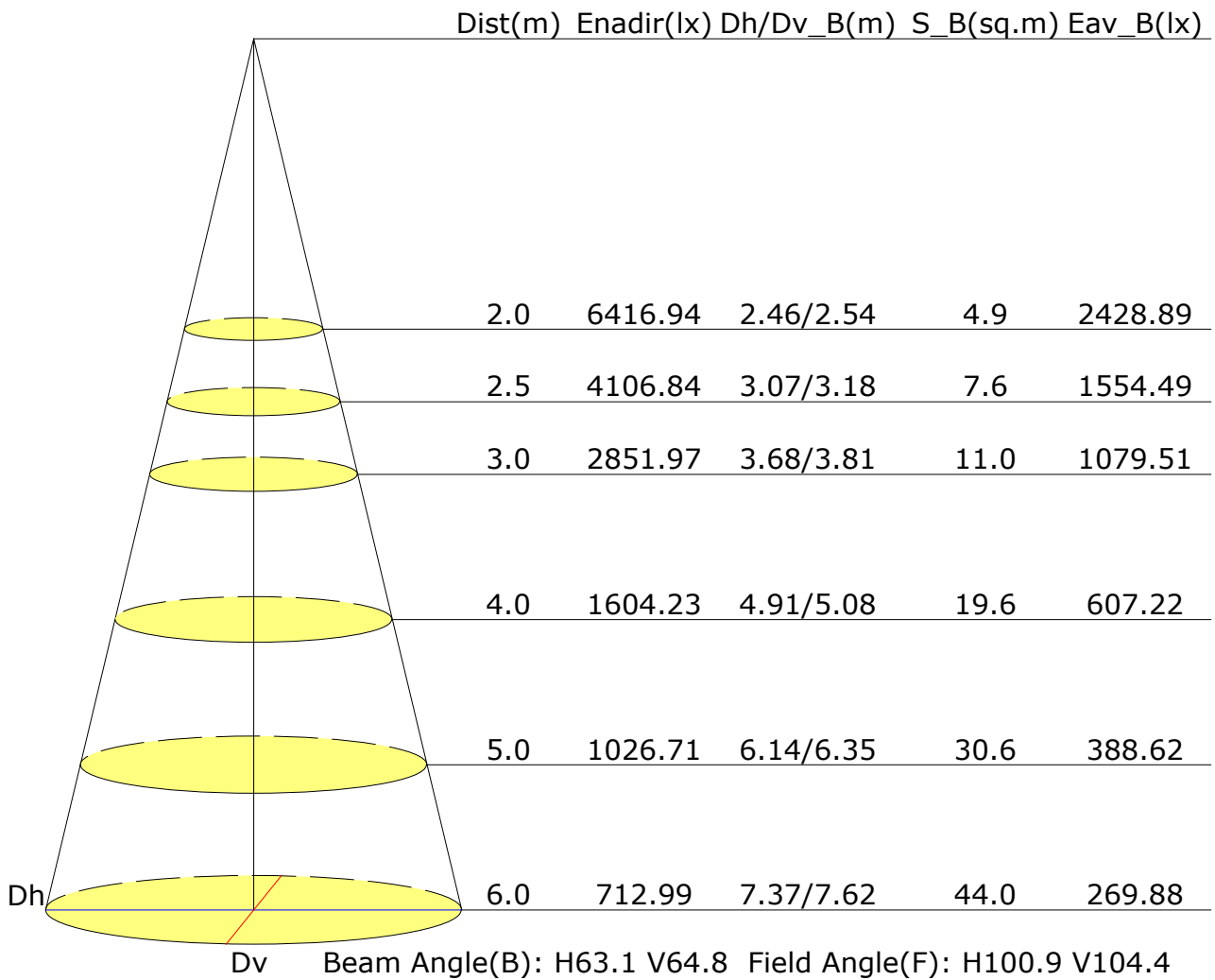
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

## 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:

## 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	21.4	22.4	21.7	22.6	22.8	21.7	22.7	22.0	22.9	23.2
3H	21.3	22.2	21.6	22.4	22.7	21.6	22.5	21.9	22.7	23.0
4H	21.2	22.0	21.6	22.3	22.6	21.5	22.3	21.9	22.6	22.9
6H	21.2	21.9	21.5	22.2	22.5	21.5	22.2	21.8	22.5	22.8
8H	21.1	21.8	21.5	22.1	22.5	21.4	22.1	21.8	22.5	22.8
12H	21.1	21.8	21.4	22.1	22.4	21.4	22.1	21.8	22.4	22.7
X=4H Y=2H	21.3	22.1	21.6	22.4	22.6	21.6	22.4	21.9	22.7	22.9
3H	21.1	21.8	21.5	22.2	22.5	21.4	22.1	21.8	22.4	22.8
4H	21.1	21.7	21.5	22.0	22.4	21.4	22.0	21.8	22.3	22.7
6H	21.0	21.5	21.4	21.9	22.3	21.3	21.8	21.7	22.2	22.6
8H	21.0	21.4	21.4	21.8	22.3	21.2	21.7	21.7	22.1	22.6
12H	20.9	21.4	21.4	21.8	22.2	21.2	21.6	21.7	22.1	22.5
X=8H Y=4H	21.0	21.4	21.4	21.8	22.3	21.2	21.7	21.7	22.1	22.6
6H	20.9	21.3	21.3	21.7	22.2	21.2	21.6	21.6	22.0	22.5
8H	20.8	21.2	21.3	21.6	22.1	21.1	21.5	21.6	21.9	22.4
12H	20.8	21.1	21.3	21.6	22.1	21.1	21.4	21.6	21.9	22.4
X=12H Y=4H	20.9	21.3	21.4	21.8	22.2	21.2	21.6	21.7	22.1	22.5
6H	20.8	21.2	21.3	21.6	22.1	21.1	21.5	21.6	21.9	22.4
8H	20.8	21.1	21.3	21.6	22.1	21.1	21.4	21.6	21.9	22.4
Variations with the observer position at spacings:										
S=1.0H	+2.2/-5.4					+2.0/-4.4				
S=1.5H	+4.6/-12.8					+4.3/-13.0				
S=2.0H	+6.6/-14.7					+6.3/-15.2				

Calculate in accordance with CIE Pub.117. The table is revised with 29685lm ( $8\log(F/F_0) = 11.8$ ).

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)

Utilance U(F)												
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	0.71	0.81	0.87	0.91	0.97	1.01	1.03	1.06	1.08	
		0.30	0.65	0.75	0.82	0.86	0.93	0.97	1.00	1.03	1.06	
		0.20	0.61	0.71	0.77	0.82	0.89	0.94	0.97	1.01	1.04	
0.50	0.50	0.20	0.70	0.79	0.85	0.89	0.94	0.97	1.00	1.02	1.04	
		0.30	0.64	0.74	0.80	0.85	0.91	0.94	0.97	1.00	1.02	
		0.20	0.60	0.70	0.77	0.81	0.87	0.91	0.94	0.98	1.00	
0.30	0.50	0.20	0.69	0.77	0.83	0.87	0.91	0.94	0.96	0.99	1.00	
		0.30	0.64	0.73	0.79	0.83	0.88	0.92	0.94	0.97	0.99	
		0.20	0.60	0.69	0.76	0.80	0.86	0.90	0.92	0.95	0.97	
0.00	0.00	0.00	0.58	0.67	0.73	0.77	0.83	0.86	0.88	0.91	0.93	
Luminous ceiling reflectance(into room):0.30 Luminous ceiling reflectance(into void):0.20 Luminous ceiling transmittance:0.40 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:

## Utilisation Factor Table(Wall)

Utilance U(W)											
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	0.77	0.61	0.51	0.43	0.34	0.28	0.23	0.18	0.14
	0.30		0.64	0.52	0.44	0.38	0.31	0.25	0.22	0.17	0.14
	0.20		0.55	0.46	0.39	0.34	0.28	0.23	0.20	0.16	0.13
0.50	0.50	0.20	0.74	0.58	0.48	0.41	0.32	0.30	0.22	0.17	0.13
	0.30		0.63	0.51	0.43	0.37	0.29	0.24	0.20	0.16	0.13
	0.20		0.55	0.45	0.38	0.33	0.27	0.22	0.19	0.15	0.12
0.30	0.50	0.20	0.72	0.56	0.46	0.39	0.30	0.24	0.20	0.15	0.13
	0.30		0.61	0.49	0.41	0.35	0.28	0.23	0.19	0.15	0.12
	0.20		0.54	0.44	0.37	0.32	0.26	0.21	0.18	0.14	0.12
0.00	0.00	0.00	0.42	0.33	0.27	0.23	0.17	0.14	0.12	0.09	0.07
<p>Luminous ceiling reflectance(into room):0.30  Luminous ceiling reflectance(into void):0.20  Luminous ceiling transmittance:0.40  Multiply UF values by service correction factors  Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>											

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(Ceiling cavity)

Utilance U(C)											
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	0.14	0.16	0.17	0.17	0.18	0.19	0.20	0.21	0.21
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.05	0.07	0.09	0.10	0.12	0.14	0.15	0.17	0.18
0.50	0.50	0.20	0.14	0.15	0.16	0.17	0.18	0.18	0.19	0.20	0.20
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.05	0.07	0.09	0.10	0.12	0.13	0.15	0.16	0.17
0.30	0.50	0.20	0.13	0.15	0.15	0.16	0.17	0.18	0.18	0.19	0.19
	0.30		0.09	0.10	0.12	0.13	0.14	0.15	0.16	0.17	0.18
	0.20		0.05	0.07	0.09	0.10	0.12	0.13	0.14	0.16	0.17
0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
<p>Luminous ceiling reflectance(into room):0.30  Luminous ceiling reflectance(into void):0.20  Luminous ceiling transmittance:0.40  Multiply UF values by service correction factors  Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>											

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: