

Report No.:

Test Time: 26.07.2021 12:42

## Luminaire Property

Luminaire Manufacturer: FAROS LED

Luminaire Category: FD 111 220W 5000K PI90

Luminous Length (mm): 400

Luminous Width (mm): 400

Luminous Height (mm): 215

Voltage: 221.4 V

Current: 1.004 A

Power: 219.05 W

Power Factor: 0.984

## Photometric Results

CIE Class: Direct

Measurement Flux: 30428.2 lm

Downward Ratio: 100%

Total Rated Lamp Lumens: 30428.2 lm

Efficiency: 100%

Upward Ratio: 0%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 118.1, 119.0, 119.8, 119.7

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 93.4, 93.1, 93.0, 93.3

Luminaire Efficacy Rating (LER): 138.96

Central Intensity: 13918.68 cd

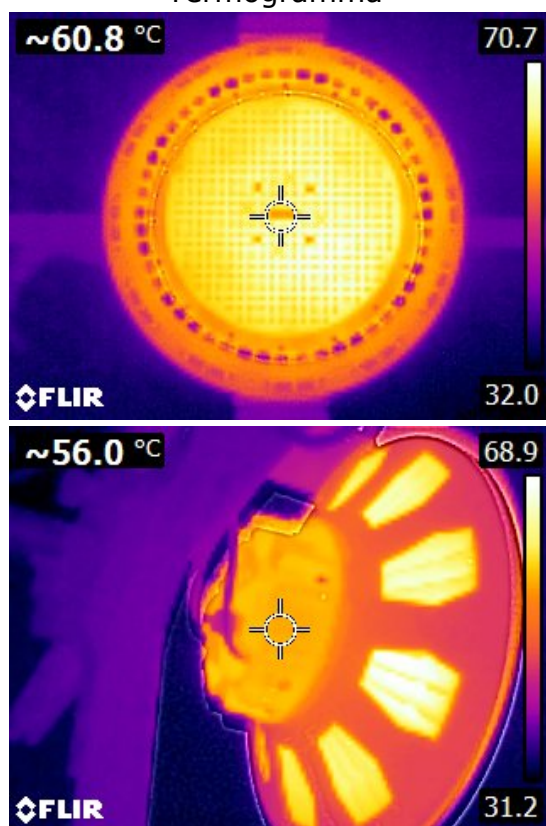
Max. Intensity: 14449.67 cd

Pos of Max. Intensity: H0 V24

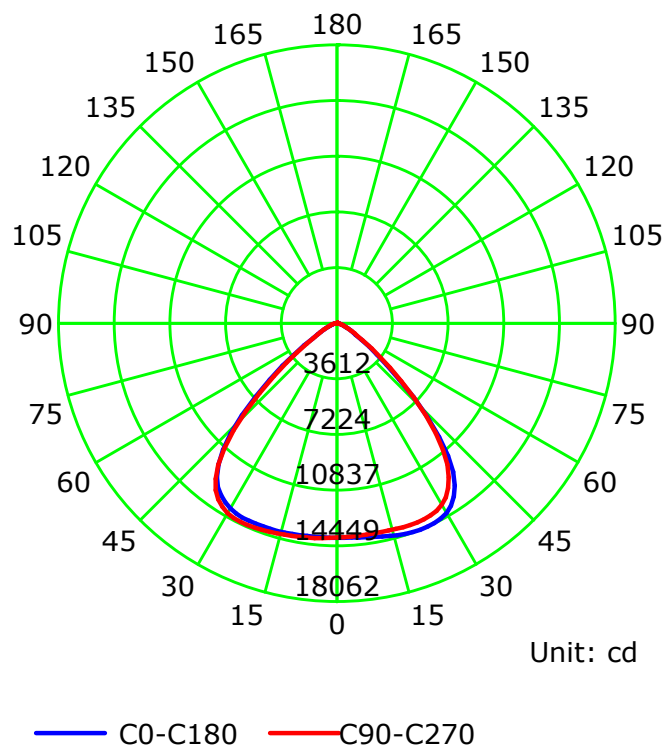
S/MH(C0/C180): 1.45

S/MH(C90/C270): 1.43

Termogramma



Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5

Test Lab: FAROS LED Lab

Test Type: TYPE C

Temperature:

Operator: Lab

Gamma Plane (°):0.0-180.0:2.0

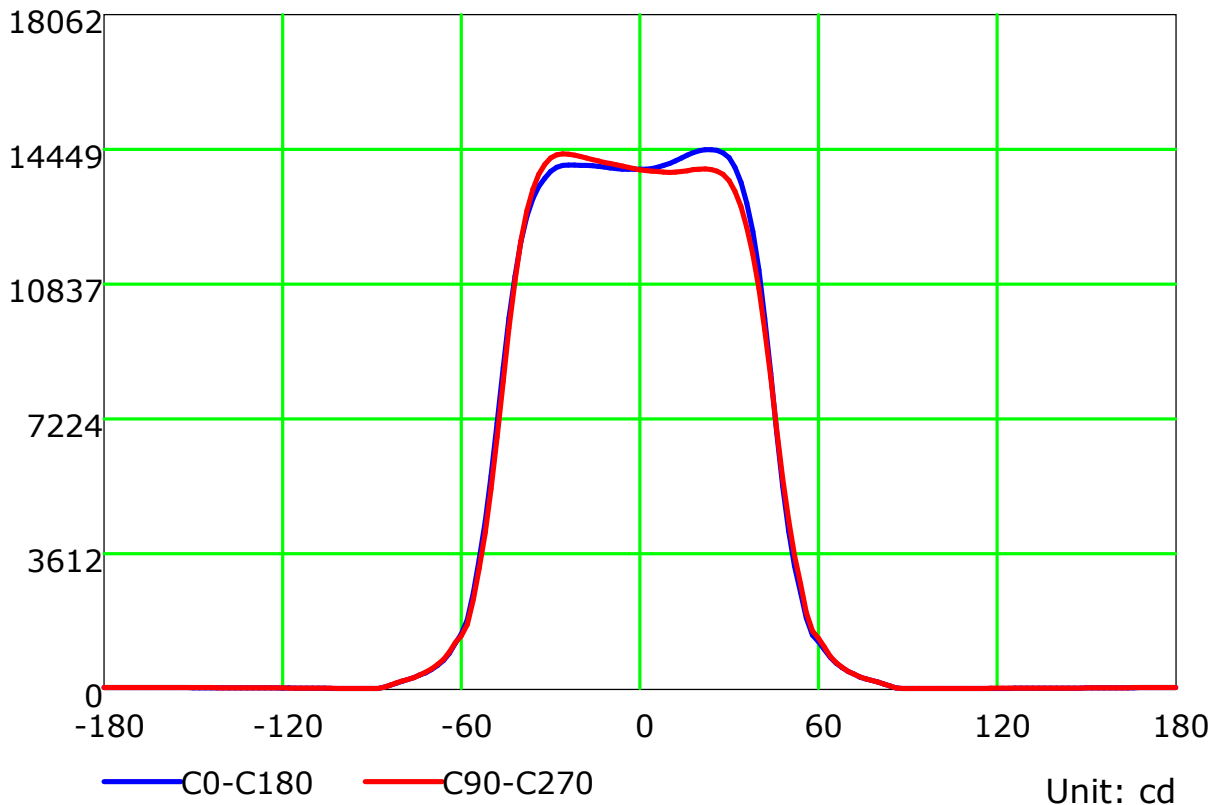
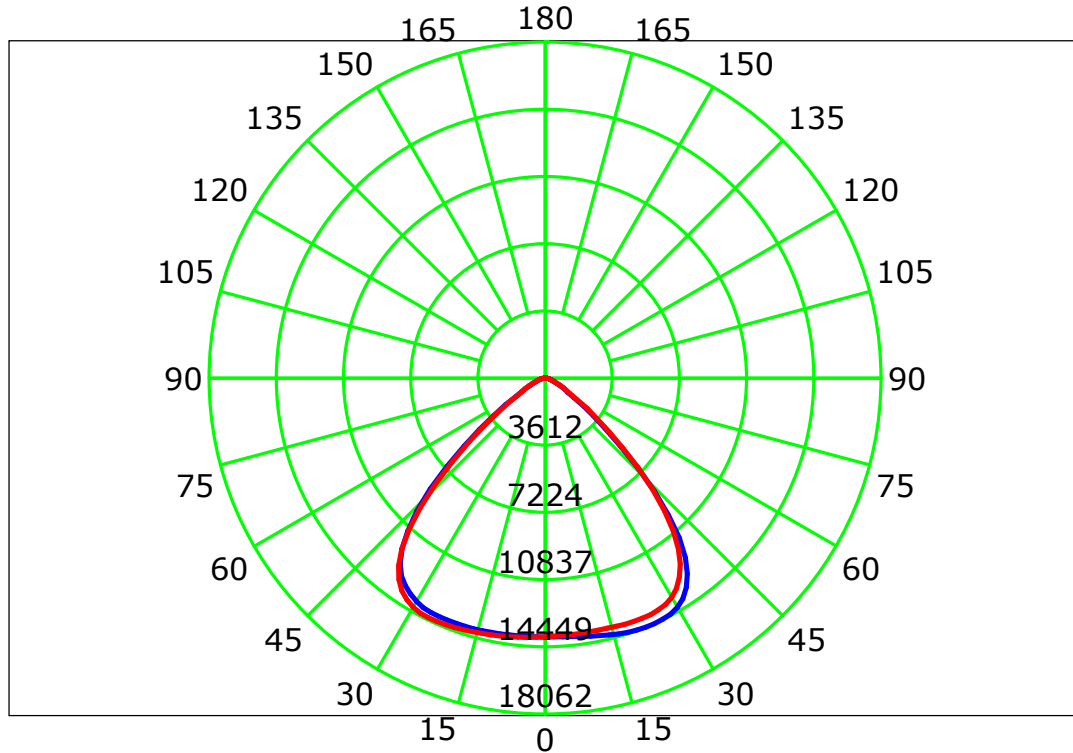
Test Device: LSG-1800B

Distance: 12.735 m

Humidity:

Inspector:

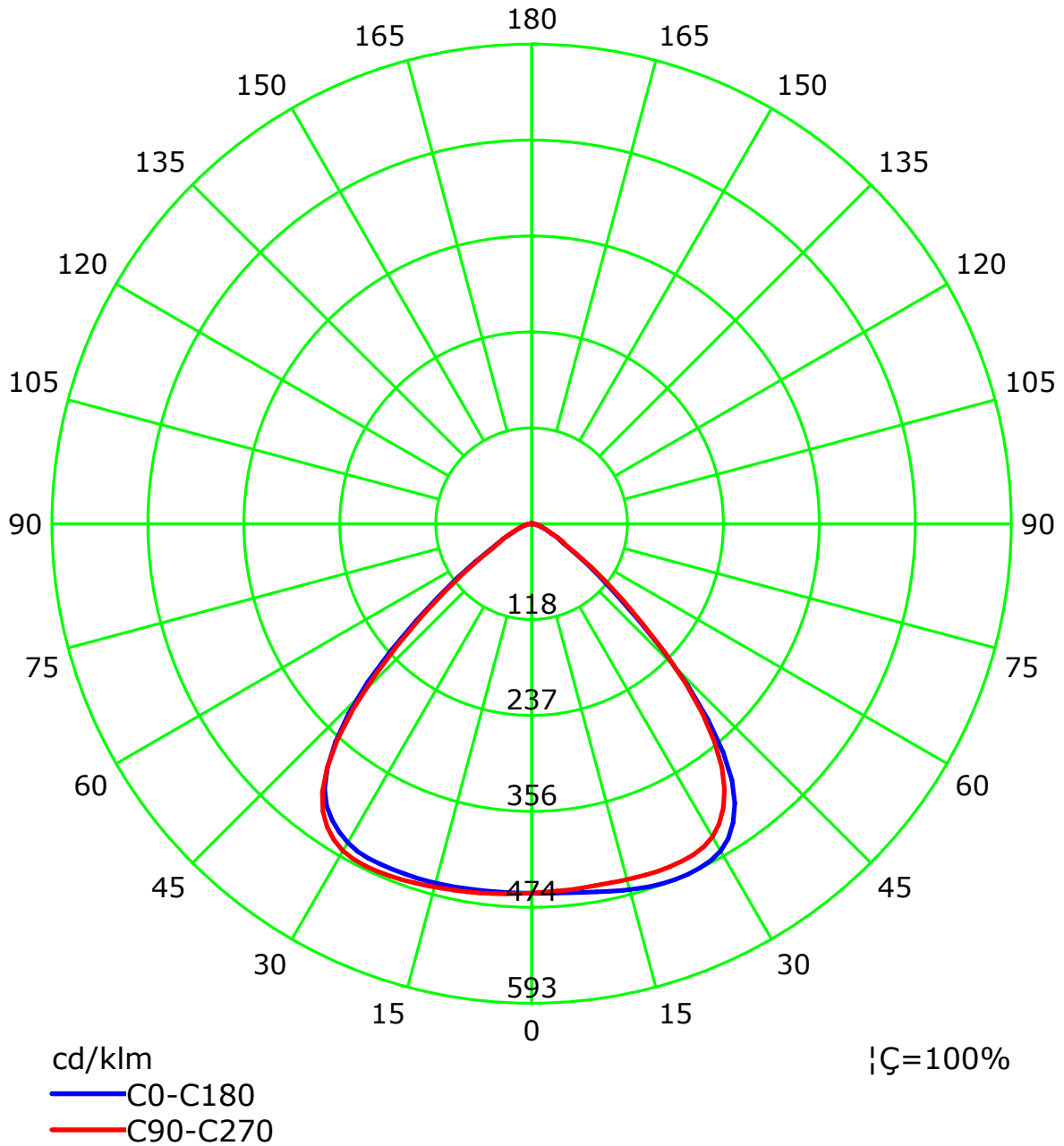
## Luminous Intensity Distribution Curve



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

Gamma Plane (°):0.0-180.0:2.0  
Test Device: LSG-1800B  
Distance: 12.735 m  
Humidity:  
Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 22.5

Test Lab: FAROS LED Lab

Test Type: TYPE C

Temperature:

Operator: Lab

Gamma Plane (°):0.0-180.0:2.0

Test Device: LSG-1800B

Distance: 12.735 m

Humidity:

Inspector:

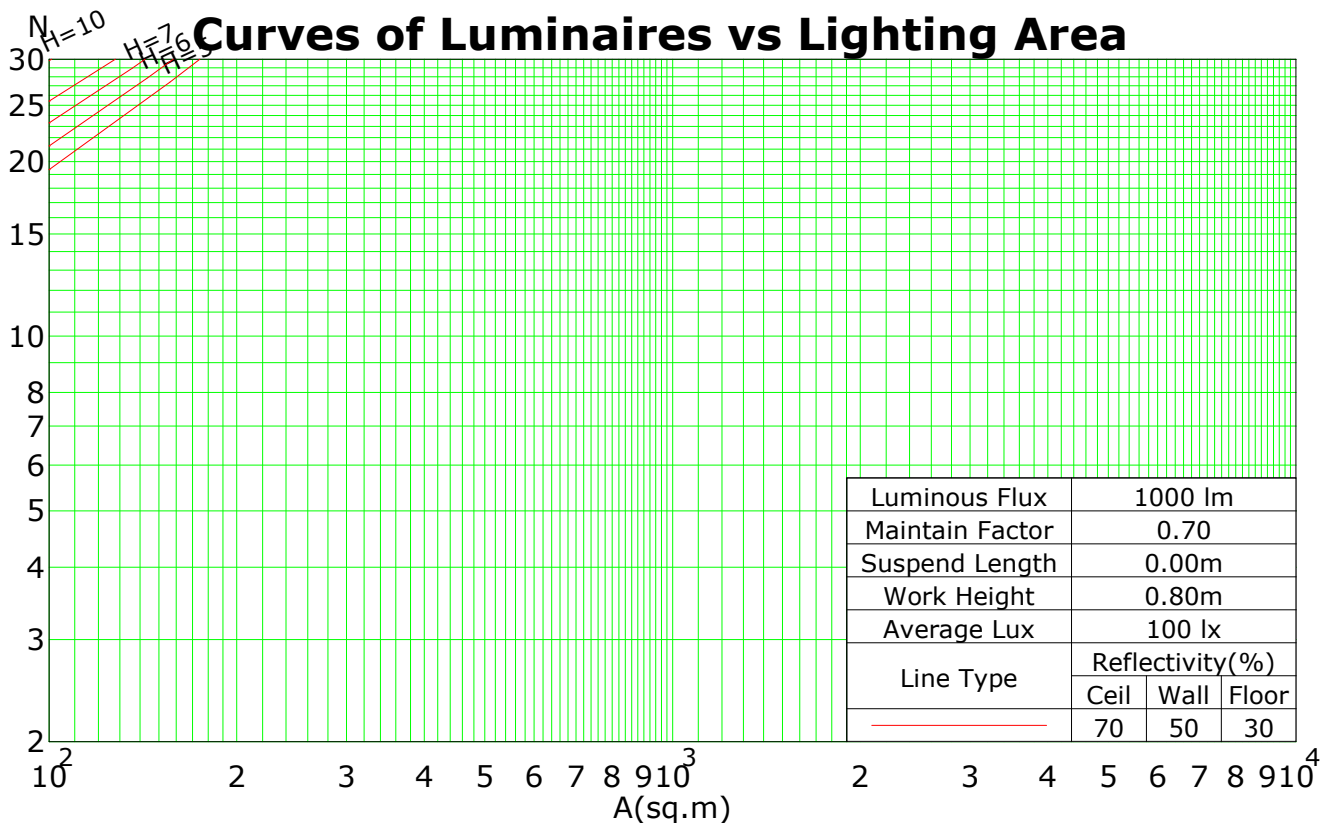
## Coefficients Of Utilization - Zonal Cavity Method

RC	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.3	0.3	0.3	0.1	0.1	0.1	0
RW	0.7	0.5	0.3	0.1	0.7	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0
RCR	RF = 0.2																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	87	101	95	91	86	92	88	84	89	85	83	86	83	81	79
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	78	75	72	70
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55
6	77	66	58	53	76	65	58	53	63	57	52	62	56	52	60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45
8	68	56	48	43	66	55	48	43	54	47	42	52	47	42	51	46	42	40
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37
10	59	47	40	35	58	47	40	35	46	40	35	45	39	35	44	39	35	33

Spacing Criteria (0-180): 1.45

Spacing Criteria (90-270): 1.43

Spacing Criteria (Diagonal): 1.35



C Plane (°):0.0-360.0: 22.5

Test Lab: FAROS LED Lab

Test Type: TYPE C

Temperature:

Operator: Lab

Gamma Plane (°):0.0-180.0:2.0

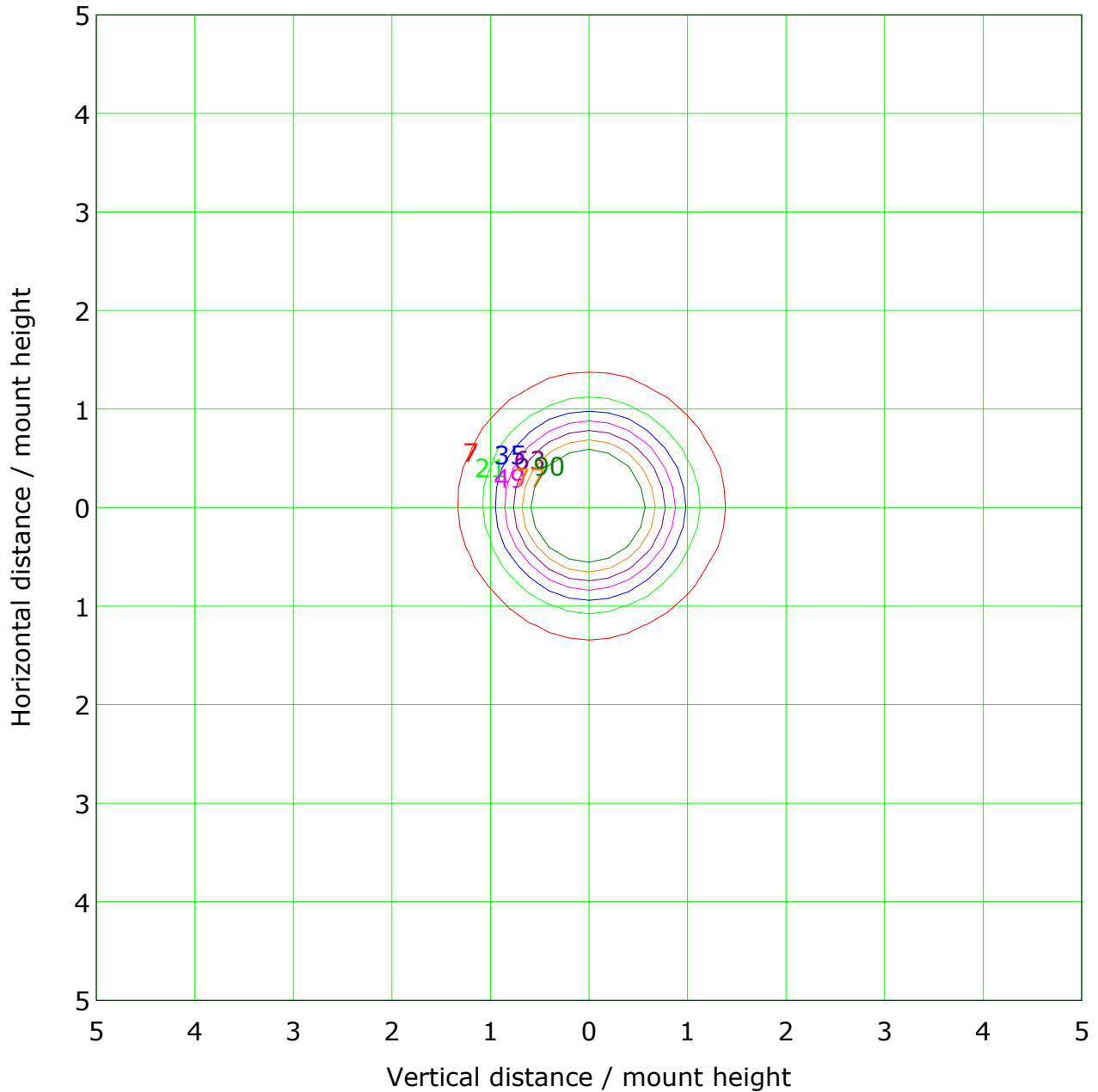
Test Device: LSG-1800B

Distance: 12.735 m

Humidity:

Inspector:

## IsoLux Plot

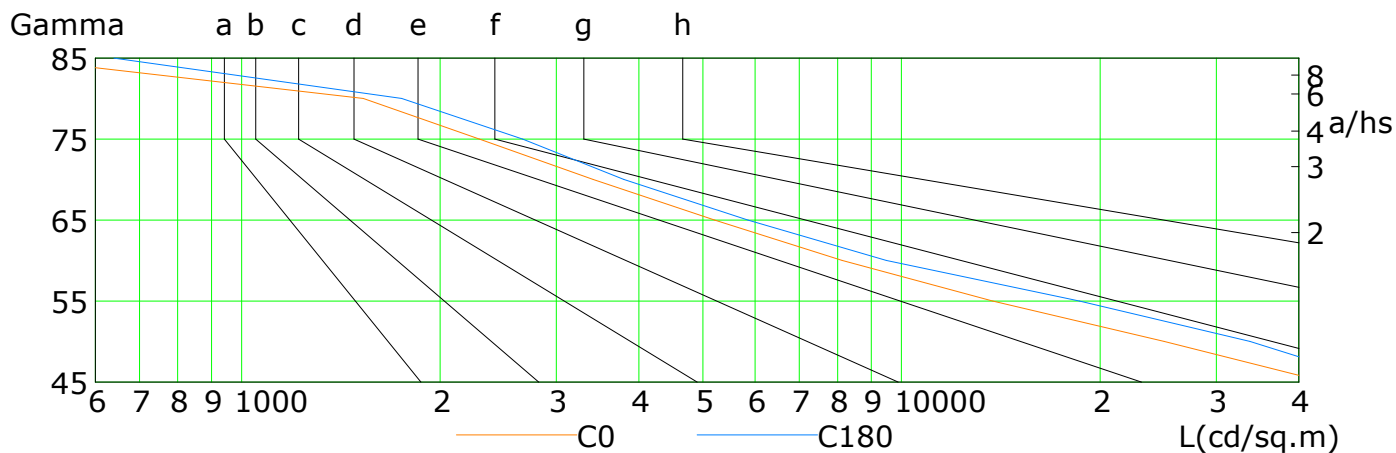
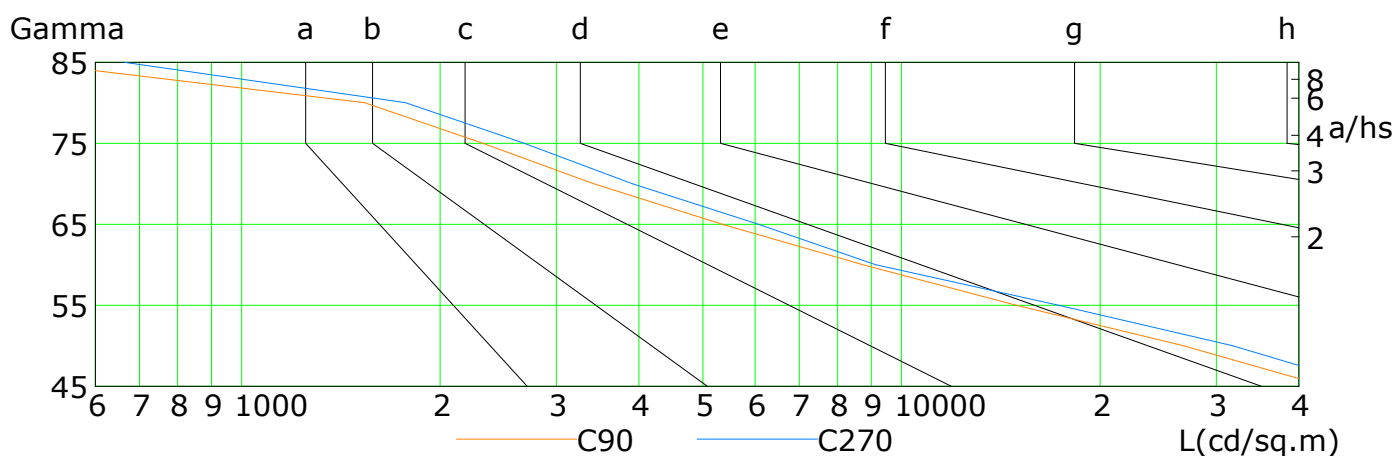


Mounting Height: 10.0m		Max Lux(100%): 139.2 lx	
— ( 5%):	7.0 lx	— ( 15%):	20.9 lx
— ( 25%):	34.8 lx	— ( 35%):	48.7 lx
— ( 45%):	62.6 lx	— ( 55%):	76.6 lx
— ( 65%):	90.5 lx		

## 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	44133	24999	13761	8130	5214	3411	2293	1529	452
C90	44000	26725	14939	8733	5355	3415	2322	1537	473
C180	53252	33744	18631	9484	5855	3795	2667	1748	641
C270	51434	31713	17309	9128	6072	3909	2683	1772	664

C Plane (°):0.0-360.0: 22.5

Test Lab: FAROS LED Lab

Test Type: TYPE C

Temperature:

Operator: Lab

Gamma Plane (°):0.0-180.0:2.0

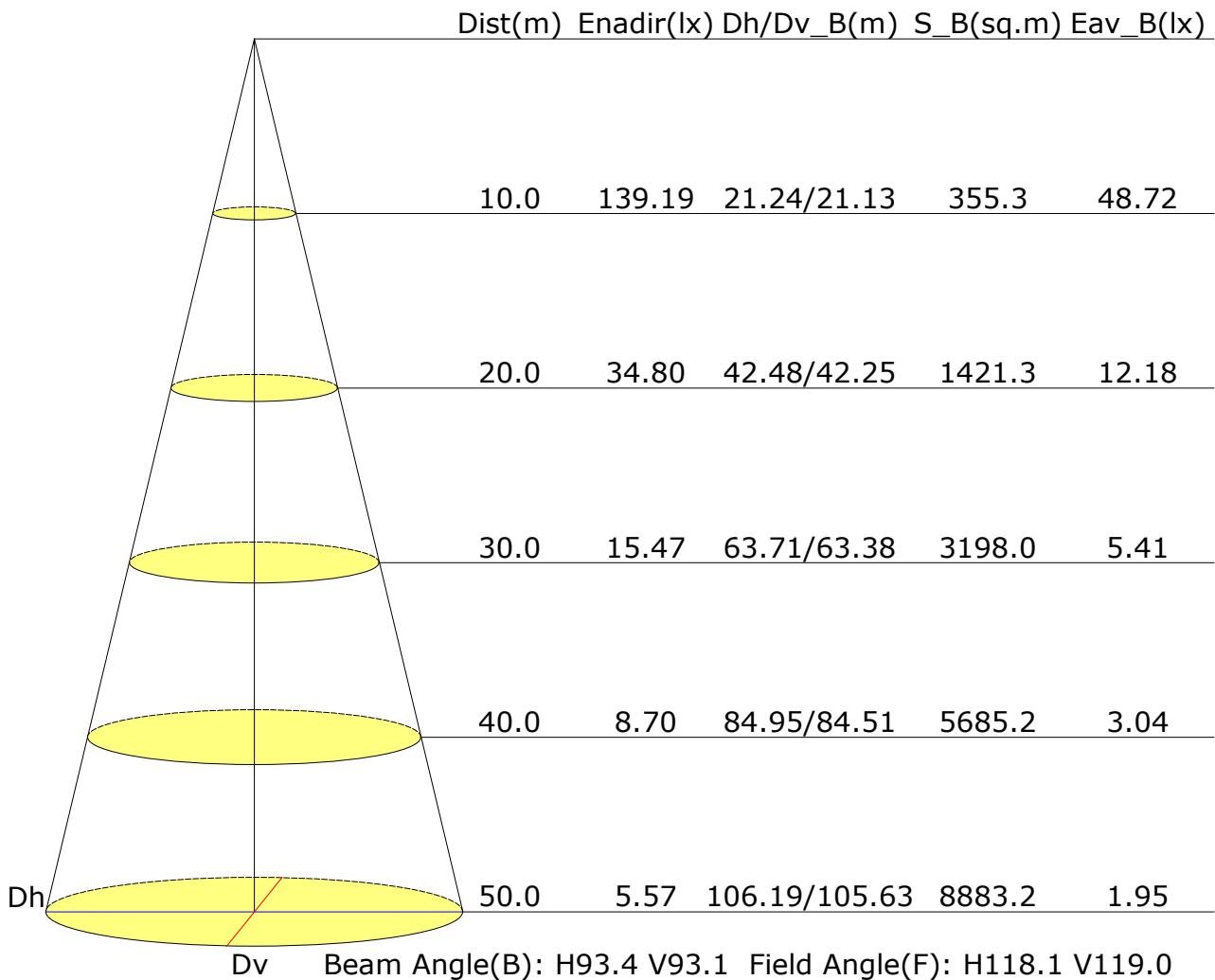
Test Device: LSG-1800B

Distance: 12.735 m

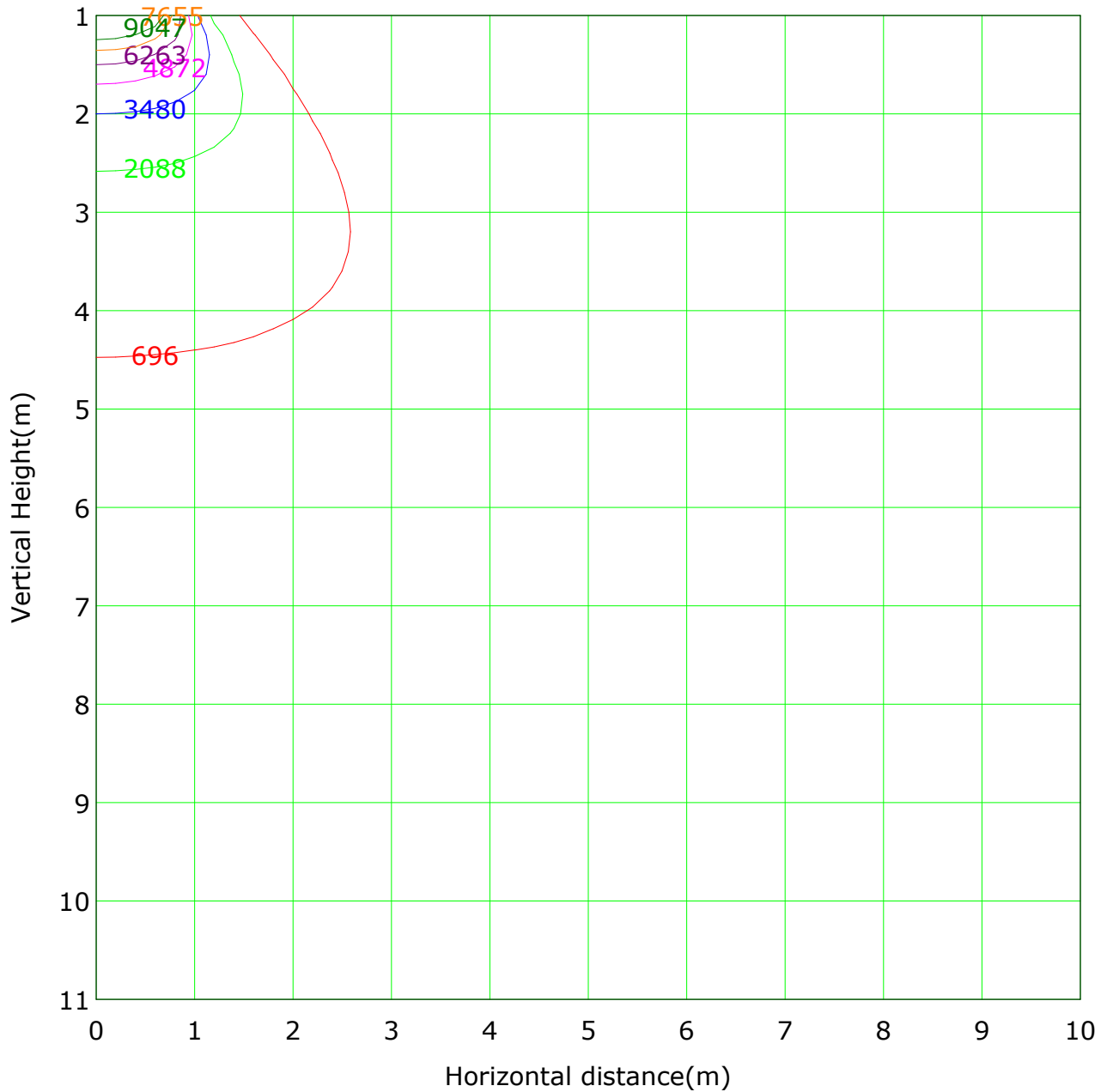
Humidity:

Inspector:

## Illuminance at a Distance



## Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 13918.7 lx

( 5%): 695.9 lx

( 15%): 2087.8 lx

( 25%): 3479.7 lx

( 35%): 4871.5 lx

( 45%): 6263.4 lx

( 55%): 7655.3 lx

( 65%): 9047.1 lx

C Plane (°): 0.0-360.0: 22.5

Test Lab: FAROS LED Lab

Test Type: TYPE C

Temperature:

Operator: Lab

Gamma Plane (°): 0.0-180.0: 2.0

Test Device: LSG-1800B

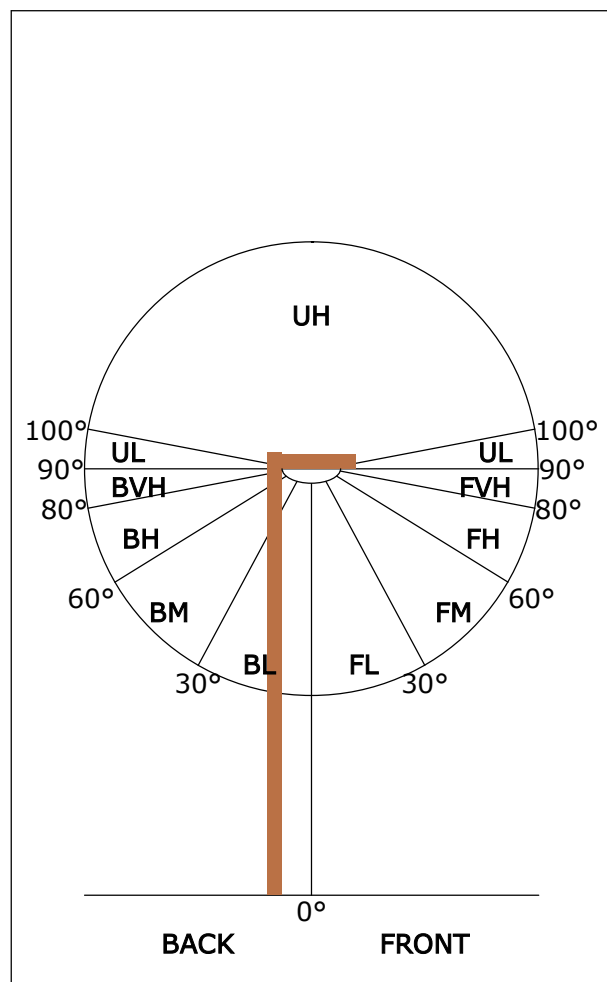
Distance: 12.735 m

Humidity:

Inspector:



**FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM**



ZONE	LUMENS	% LAMP LUMENS
FORWARD LIGHT	14746	48.5
FL ( 0°-30°)	5879	19.3
FM (30°-60°)	8095	26.6
FH (60°-80°)	721	2.4
FVH (80°-90°)	51	0.2
BACK LIGHT	15593	51.2
BL ( 0°-30°)	5969	19.6
BM (30°-60°)	8792	28.9
BH (60°-80°)	771	2.5
BVH (80°-90°)	62	0.2
UP LIGHT	89	0.3
UL (90°-100°)	5	0.0
UH (100°-180°)	84	0.3
TRAPPED LIGHT	NA	NA

BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B5 U2 G2
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B5 U2 G1

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Test Device: LSG-1800B  
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