

Report No.: MSL-8-1

Test Time: 2019-12-14 11:44

## Luminaire Property

Luminaire Manufacturer: Stand Iluminaciones S.A.S

Luminaire Category: Interior

Luminaire Description: Aplique Siliconado 25W Samsung

Luminous Length (mm): 340 Diametro

Luminous Width (mm): 340 Diametro

Luminous Height (mm): 40

Voltage: 119.9 V

Current: 0.210 A

Power: 25.04 W

Power Factor: 0.992

## Photometric Results

CIE Class: Semi-Direct

Total Rated Lamp Lumens: 2559.4 lm

Measurement Flux: 2559.4 lm

Efficiency: 100%

Downward Ratio: 88%

Upward Ratio: 12%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 193.7, 193.8, 193.9, 193.4

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 121.1, 121.0, 121.0, 121.1

Luminaire Efficacy Rating (LER): 102.26

Central Intensity: 678.99 cd

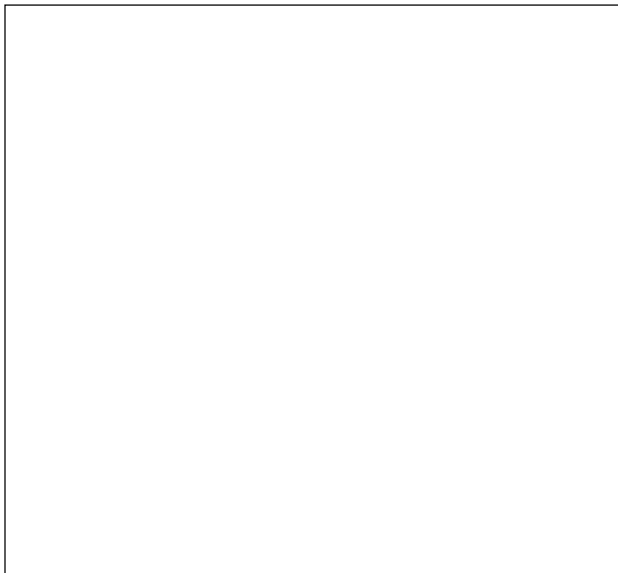
Max. Intensity: 679.28 cd

Pos of Max. Intensity: H10 V0

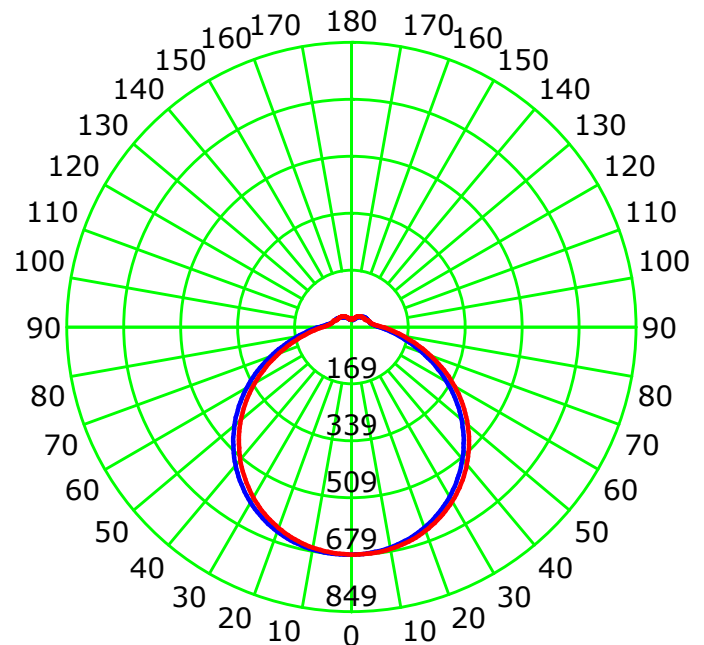
S/MH(C0/C180): 1.30

S/MH(C90/C270): 1.30

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

C Plane (°):0.0-360.0: 10.0

Gamma Plane (°):0.0-180.0:1.0

Test Lab: LABORATORIO STAND

Test Device: LSG-1700B

Test Type: TYPE C

Distance: 11.700 m — C90-C270

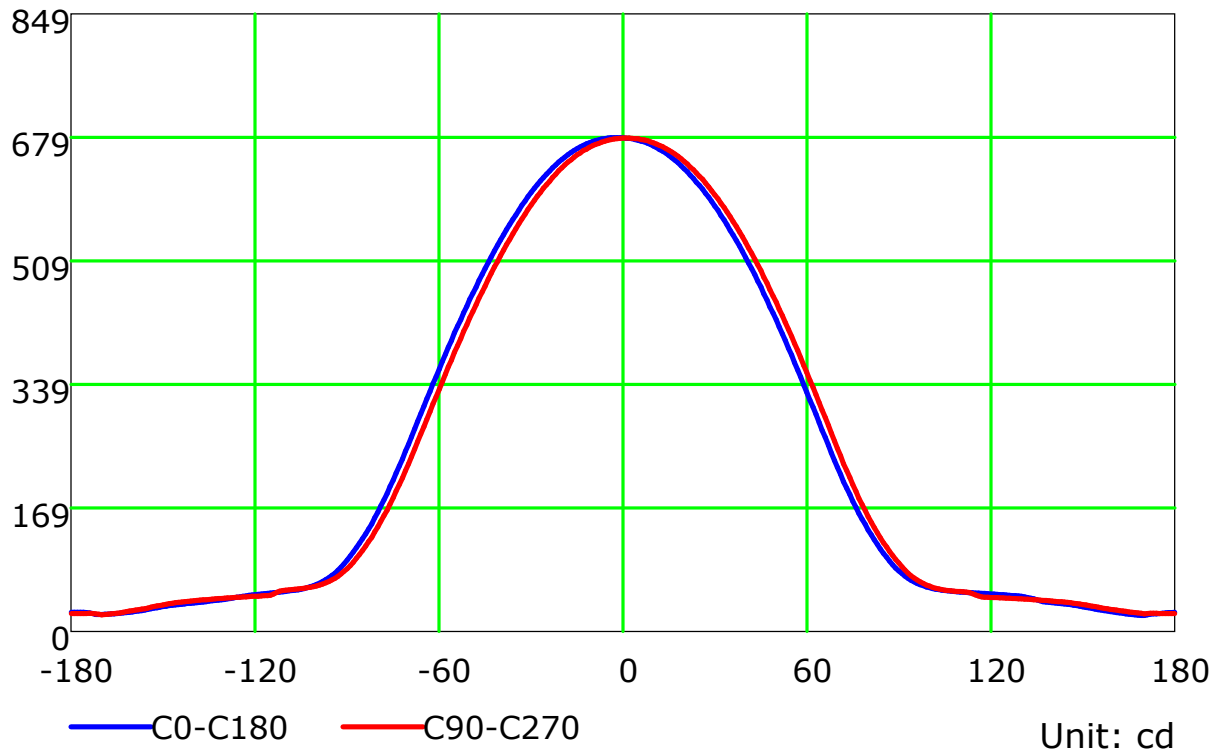
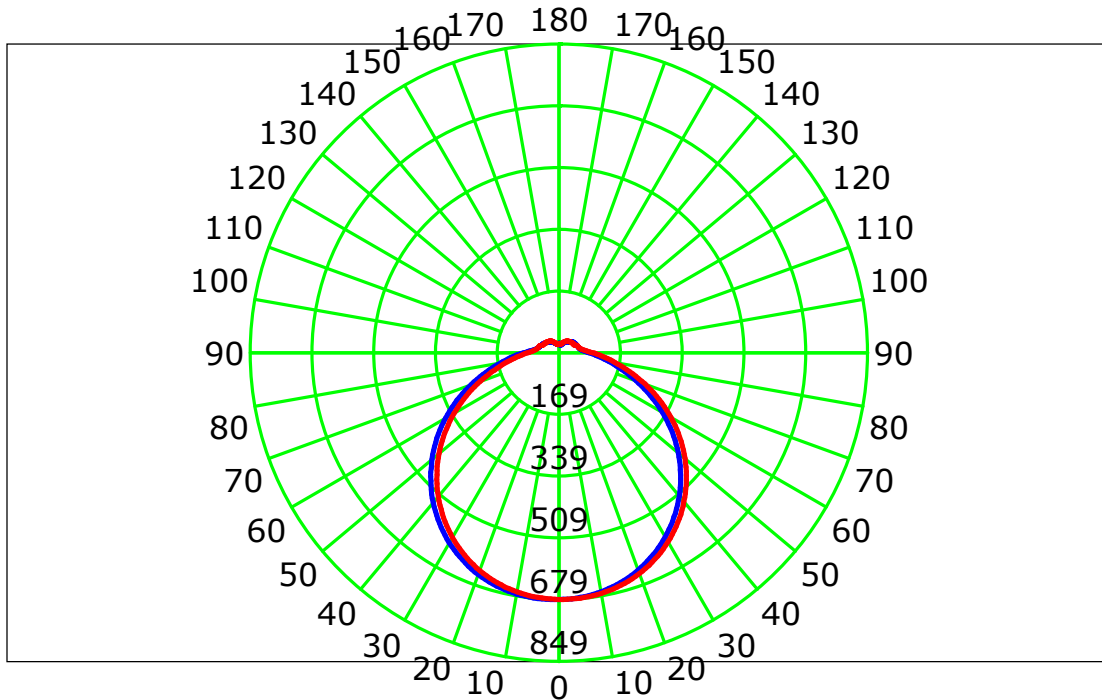
Temperature: 25.5

Humidity:

Operator: Cristian Herrera Arismendy

Inspector:

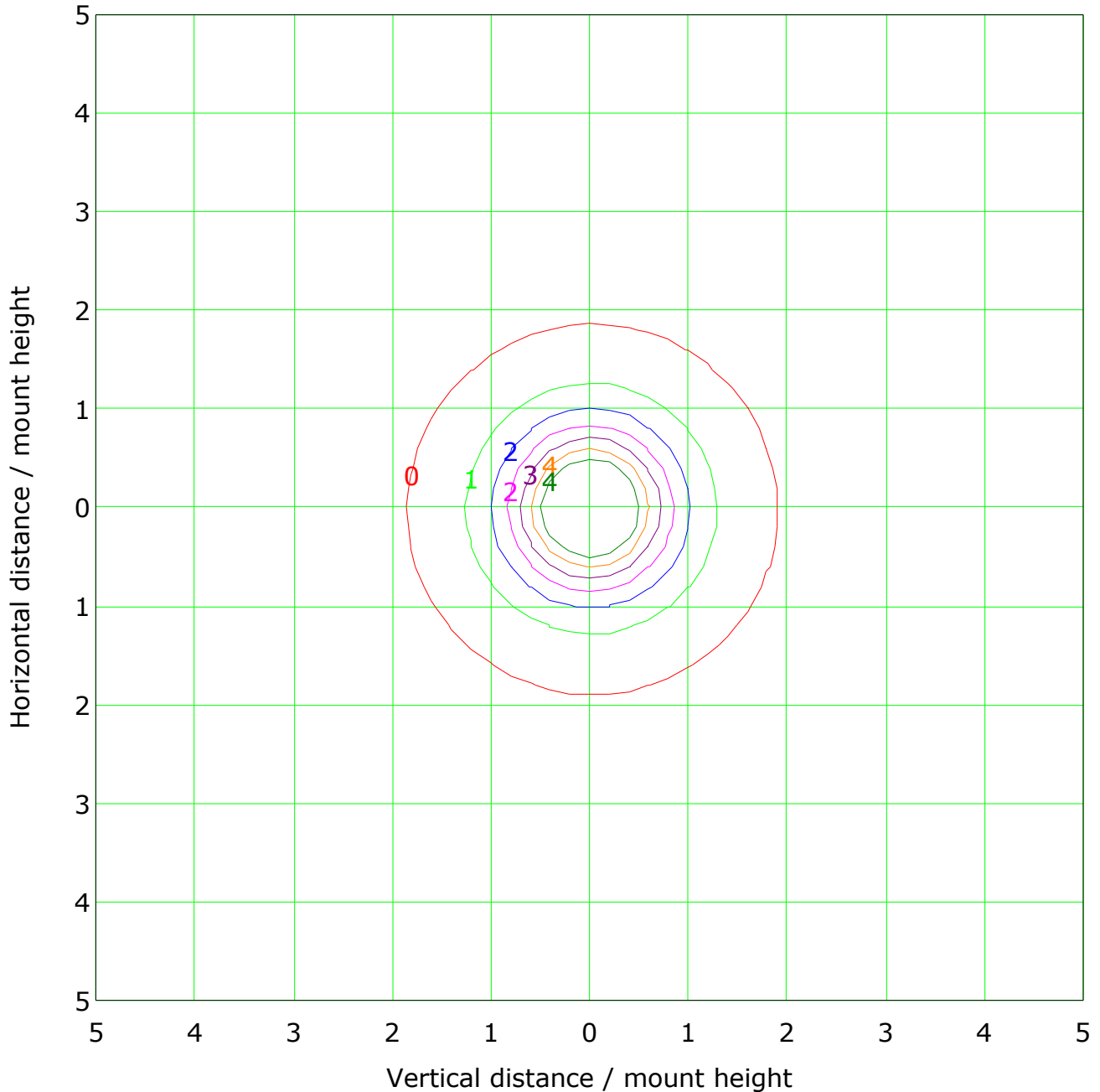
## Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 10.0  
 Test Lab: LABORATORIO STAND  
 Test Type: TYPE C  
 Temperature: 25.5  
 Operator: Cristian Herrera Arismendy

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: LSG-1700B  
 Distance: 11.700 m  
 Humidity:  
 Inspector:

## IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 6.8 lx

— ( 5%): 0.3 lx — ( 15%): 1.0 lx

— ( 25%): 1.7 lx — ( 25%): 2.1 lx

C Plane (°):0.0-360.0: 10.0, \, 3.1 lx

Gamma Plane (°):0.0-180.0:1.0

Test Lab: LABORATORIO STAND ( 65%): 4.4 lx

Test Device: LSG-1700B lx

Test Type: TYPE C

Distance: 11.700 m

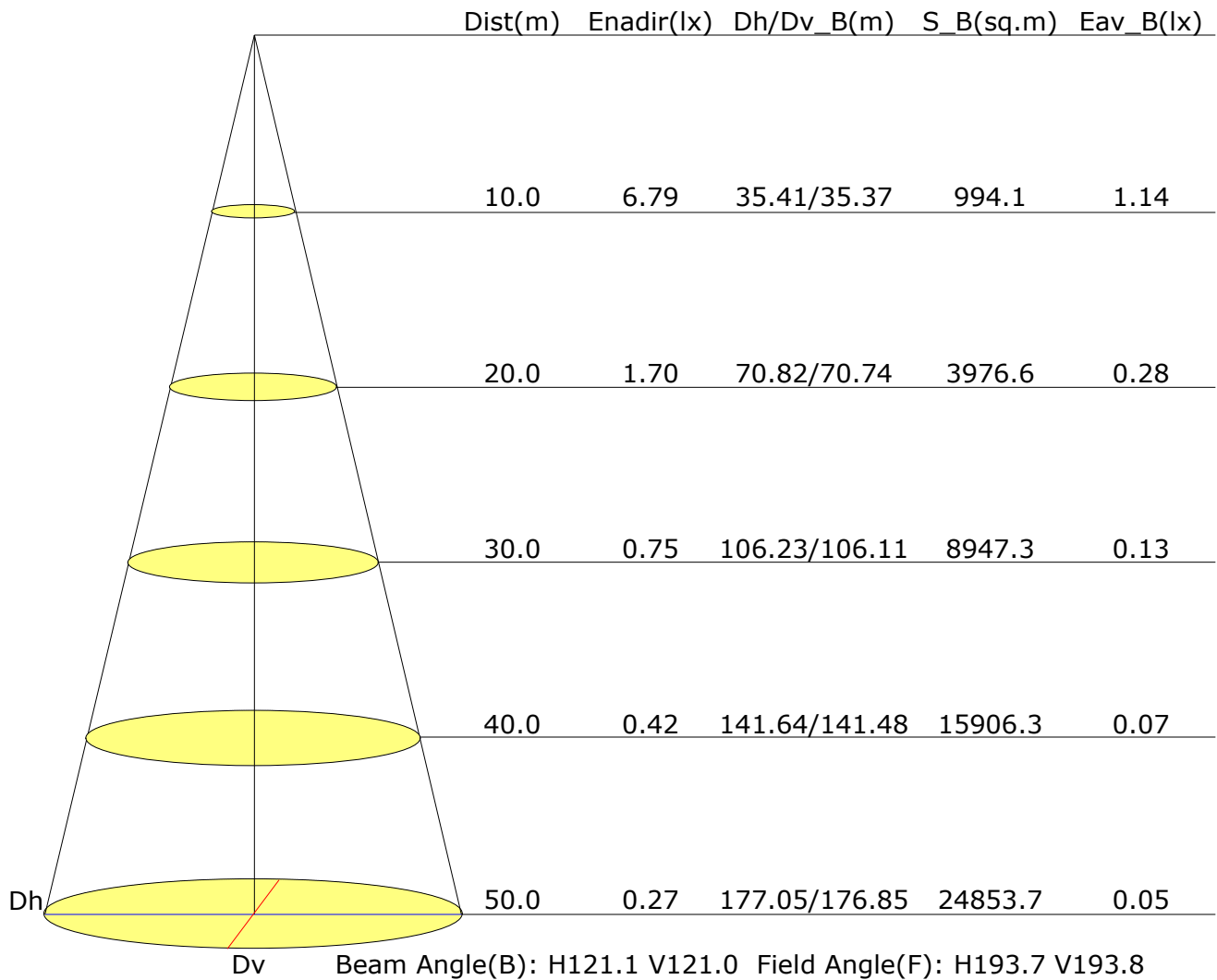
Temperature: 25.5

Humidity:

Operator: Cristian Herrera Arismendy

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	17.0	18.3	17.5	18.8	19.3	17.2	18.5	17.7	19.0	19.5
3H	18.7	19.8	19.2	20.3	20.9	19.0	20.1	19.5	20.6	21.1
4H	19.4	20.5	19.9	21.0	21.6	19.7	20.8	20.3	21.3	21.9
6H	20.1	21.1	20.7	21.7	22.2	20.5	21.5	21.0	22.0	22.6
8H	20.4	21.4	21.0	22.0	22.6	20.8	21.8	21.4	22.3	22.9
12H	20.8	21.7	21.3	22.3	22.9	21.2	22.1	21.7	22.6	23.3
X=4H Y=2H	17.7	18.8	18.2	19.3	19.8	17.8	18.9	18.4	19.4	20.0
3H	19.5	20.4	20.1	21.0	21.6	19.7	20.7	20.3	21.2	21.8
4H	20.4	21.2	21.0	21.8	22.4	20.7	21.5	21.2	22.1	22.7
6H	21.2	22.0	21.8	22.6	23.2	21.5	22.3	22.1	22.9	23.6
8H	21.6	22.3	22.2	22.9	23.6	22.0	22.7	22.6	23.3	24.0
12H	22.0	22.7	22.7	23.3	24.0	22.4	23.0	23.0	23.7	24.4
X=8H Y=4H	20.7	21.4	21.3	22.0	22.7	21.0	21.7	21.6	22.3	22.9
6H	21.8	22.3	22.4	23.0	23.7	22.0	22.6	22.7	23.2	24.0
8H	22.3	22.8	23.0	23.5	24.2	22.6	23.1	23.3	23.8	24.5
12H	22.8	23.3	23.5	24.0	24.7	23.2	23.6	23.9	24.3	25.1
X=12H Y=4H	20.8	21.4	21.4	22.0	22.7	21.0	21.6	21.6	22.3	23.0
6H	21.9	22.4	22.5	23.0	23.8	22.1	22.6	22.8	23.3	24.0
8H	22.5	22.9	23.1	23.6	24.3	22.8	23.2	23.4	23.9	24.6
Variations with the observer position at spacings:										
S=1.0H	+0.2/-0.2					+0.2/-0.2				
S=1.5H	+0.4/-0.4					+0.4/-0.5				
S=2.0H	+0.5/-0.8					+0.5/-0.8				

Calculate in accordance with CIE Pub.117. The table is revised with 2559lm ( $8\log(F/F_0) = 3.3$ ).

## Zonal Lumen

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	678.5	0.6	0.6	0.03	0.03
1.0-2.0	678.3	1.9	2.6	0.08	0.10
2.0-3.0	678.0	3.2	5.8	0.13	0.23
3.0-4.0	677.5	4.5	10.4	0.18	0.41
4.0-5.0	677.0	5.8	16.2	0.23	0.63
5.0-6.0	676.1	7.1	23.3	0.28	0.91
6.0-7.0	675.1	8.4	31.7	0.33	1.24
7.0-8.0	673.9	9.6	41.3	0.38	1.61
8.0-9.0	672.6	10.9	52.2	0.43	2.04
9.0-10.0	671.1	12.1	64.4	0.47	2.52
10.0-11.0	669.3	13.4	77.8	0.52	3.04
11.0-12.0	667.3	14.6	92.3	0.57	3.61
12.0-13.0	665.2	15.8	108.1	0.62	4.22
13.0-14.0	662.8	17.0	125.1	0.66	4.89
14.0-15.0	660.2	18.1	143.2	0.71	5.60
15.0-16.0	657.4	19.3	162.5	0.75	6.35
16.0-17.0	654.3	20.4	182.9	0.80	7.15
17.0-18.0	651.2	21.5	204.3	0.84	7.98
18.0-19.0	647.8	22.5	226.9	0.88	8.86
19.0-20.0	644.1	23.6	250.5	0.92	9.79
20.0-21.0	640.5	24.6	275.1	0.96	10.75
21.0-22.0	636.3	25.6	300.6	1.00	11.75
22.0-23.0	632.0	26.5	327.2	1.04	12.78
23.0-24.0	627.5	27.4	354.6	1.07	13.85
24.0-25.0	622.8	28.3	382.9	1.11	14.96
25.0-26.0	618.1	29.2	412.1	1.14	16.10
26.0-27.0	613.0	30.0	442.1	1.17	17.27
27.0-28.0	607.7	30.8	472.9	1.20	18.48
28.0-29.0	602.5	31.5	504.4	1.23	19.71
29.0-30.0	596.7	32.2	536.6	1.26	20.97
30.0-31.0	590.8	32.9	569.5	1.28	22.25
31.0-32.0	584.7	33.5	603.0	1.31	23.56
32.0-33.0	578.5	34.1	637.1	1.33	24.89
33.0-34.0	572.3	34.6	671.7	1.35	26.25
34.0-35.0	565.7	35.1	706.9	1.37	27.62
35.0-36.0	558.8	35.6	742.4	1.39	29.01

C Plane (°):0.0-360.0: 10.0  
 Test Lab: LABORATORIO STAND  
 Test Type: TYPE C  
 Temperature: 25.5  
 Operator: Cristian Herrera Arismendy

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: LSG-1700B  
 Distance: 11.700 m  
 Humidity:  
 Inspector:

## Zonal Lumen (Continue 1)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	551.9	36.0	778.4	1.41	30.42
37.0-38.0	544.7	36.4	814.8	1.42	31.84
38.0-39.0	537.5	36.7	851.5	1.43	33.27
39.0-40.0	530.0	37.0	888.5	1.44	34.71
40.0-41.0	522.3	37.2	925.7	1.45	36.17
41.0-42.0	514.7	37.4	963.1	1.46	37.63
42.0-43.0	506.6	37.5	1000.6	1.47	39.09
43.0-44.0	498.4	37.6	1038.2	1.47	40.56
44.0-45.0	490.2	37.7	1075.9	1.47	42.04
45.0-46.0	481.6	37.7	1113.6	1.47	43.51
46.0-47.0	473.2	37.6	1151.2	1.47	44.98
47.0-48.0	464.4	37.5	1188.7	1.47	46.45
48.0-49.0	455.4	37.4	1226.1	1.46	47.91
49.0-50.0	446.7	37.2	1263.4	1.46	49.36
50.0-51.0	437.4	37.0	1300.4	1.45	50.81
51.0-52.0	428.1	36.7	1337.1	1.44	52.24
52.0-53.0	418.8	36.4	1373.6	1.42	53.67
53.0-54.0	409.2	36.1	1409.7	1.41	55.08
54.0-55.0	399.7	35.7	1445.3	1.39	56.47
55.0-56.0	389.9	35.2	1480.6	1.38	57.85
56.0-57.0	379.9	34.7	1515.3	1.36	59.21
57.0-58.0	370.3	34.3	1549.6	1.34	60.54
58.0-59.0	360.2	33.7	1583.2	1.32	61.86
59.0-60.0	349.9	33.1	1616.3	1.29	63.15
60.0-61.0	339.6	32.4	1648.7	1.27	64.42
61.0-62.0	329.2	31.7	1680.4	1.24	65.66
62.0-63.0	319.2	31.0	1711.5	1.21	66.87
63.0-64.0	308.7	30.3	1741.8	1.18	68.05
64.0-65.0	298.2	29.5	1771.3	1.15	69.21
65.0-66.0	288.1	28.8	1800.0	1.12	70.33
66.0-67.0	277.7	27.9	1828.0	1.09	71.42
67.0-68.0	267.2	27.1	1855.0	1.06	72.48
68.0-69.0	256.7	26.2	1881.2	1.02	73.50
69.0-70.0	246.4	25.3	1906.5	0.99	74.49
70.0-71.0	236.7	24.5	1931.0	0.96	75.45
71.0-72.0	226.7	23.6	1954.6	0.92	76.37

C Plane (°):0.0-360.0: 10.0  
 Test Lab: LABORATORIO STAND  
 Test Type: TYPE C  
 Temperature: 25.5  
 Operator: Cristian Herrera Arismendy

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: LSG-1700B  
 Distance: 11.700 m  
 Humidity:  
 Inspector:

## Zonal Lumen (Continue 2)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
72.0-73.0	216.9	22.7	1977.3	0.89	77.25
73.0-74.0	207.7	21.8	1999.1	0.85	78.11
74.0-75.0	198.3	21.0	2020.0	0.82	78.93
75.0-76.0	189.1	20.1	2040.1	0.78	79.71
76.0-77.0	180.3	19.2	2059.3	0.75	80.46
77.0-78.0	171.7	18.4	2077.7	0.72	81.18
78.0-79.0	163.7	17.6	2095.3	0.69	81.87
79.0-80.0	155.7	16.8	2112.1	0.66	82.52
80.0-81.0	148.0	16.0	2128.1	0.63	83.15
81.0-82.0	140.8	15.3	2143.4	0.60	83.75
82.0-83.0	133.7	14.5	2157.9	0.57	84.31
83.0-84.0	127.0	13.8	2171.8	0.54	84.85
84.0-85.0	120.6	13.2	2184.9	0.51	85.37
85.0-86.0	114.4	12.5	2197.4	0.49	85.86
86.0-87.0	108.8	11.9	2209.3	0.47	86.32
87.0-88.0	103.1	11.3	2220.6	0.44	86.76
88.0-89.0	97.8	10.7	2231.4	0.42	87.18
89.0-90.0	93.0	10.2	2241.6	0.40	87.58
90.0-91.0	88.4	9.7	2251.3	0.38	87.96
91.0-92.0	84.3	9.2	2260.5	0.36	88.32
92.0-93.0	80.5	8.8	2269.3	0.34	88.67
93.0-94.0	77.0	8.4	2277.7	0.33	89.00
94.0-95.0	74.1	8.1	2285.8	0.32	89.31
95.0-96.0	71.4	7.8	2293.6	0.30	89.62
96.0-97.0	68.9	7.5	2301.1	0.29	89.91
97.0-98.0	66.8	7.3	2308.4	0.28	90.19
98.0-99.0	64.9	7.0	2315.4	0.28	90.47
99.0-100.0	63.3	6.8	2322.3	0.27	90.74
100.0-101.0	61.9	6.7	2329.0	0.26	91.00
101.0-102.0	60.6	6.5	2335.5	0.25	91.25
102.0-103.0	59.6	6.4	2341.9	0.25	91.50
103.0-104.0	58.7	6.3	2348.1	0.24	91.74
104.0-105.0	58.0	6.2	2354.3	0.24	91.99
105.0-106.0	57.3	6.1	2360.3	0.24	92.22
106.0-107.0	56.7	6.0	2366.3	0.23	92.45
107.0-108.0	56.2	5.9	2372.2	0.23	92.68

C Plane (°):0.0-360.0: 10.0  
 Test Lab: LABORATORIO STAND  
 Test Type: TYPE C  
 Temperature: 25.5  
 Operator: Cristian Herrera Arismendy

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: LSG-1700B  
 Distance: 11.700 m  
 Humidity:  
 Inspector:



### Zonal Lumen (Continue 3)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
108.0-109.0	55.8	5.8	2378.0	0.23	92.91
109.0-110.0	55.3	5.7	2383.7	0.22	93.13
110.0-111.0	54.9	5.6	2389.3	0.22	93.35
111.0-112.0	54.4	5.5	2394.9	0.22	93.57
112.0-113.0	53.8	5.5	2400.3	0.21	93.78
113.0-114.0	53.2	5.4	2405.7	0.21	93.99
114.0-115.0	52.6	5.3	2410.9	0.21	94.20
115.0-116.0	52.1	5.2	2416.1	0.20	94.40
116.0-117.0	51.7	5.1	2421.2	0.20	94.60
117.0-118.0	51.3	5.0	2426.1	0.20	94.79
118.0-119.0	51.0	4.9	2431.1	0.19	94.99
119.0-120.0	50.6	4.8	2435.9	0.19	95.17
120.0-121.0	50.1	4.7	2440.6	0.19	95.36
121.0-122.0	49.7	4.6	2445.3	0.18	95.54
122.0-123.0	49.2	4.6	2449.8	0.18	95.72
123.0-124.0	48.8	4.5	2454.3	0.17	95.89
124.0-125.0	48.3	4.4	2458.6	0.17	96.06
125.0-126.0	47.8	4.3	2462.9	0.17	96.23
126.0-127.0	47.3	4.2	2467.1	0.16	96.39
127.0-128.0	46.7	4.1	2471.1	0.16	96.55
128.0-129.0	46.2	4.0	2475.1	0.15	96.71
129.0-130.0	45.6	3.9	2479.0	0.15	96.86
130.0-131.0	45.0	3.7	2482.7	0.15	97.00
131.0-132.0	44.4	3.6	2486.4	0.14	97.15
132.0-133.0	43.8	3.5	2489.9	0.14	97.28
133.0-134.0	43.1	3.4	2493.3	0.13	97.42
134.0-135.0	42.5	3.3	2496.6	0.13	97.55
135.0-136.0	41.9	3.2	2499.9	0.13	97.67
136.0-137.0	41.4	3.1	2503.0	0.12	97.80
137.0-138.0	40.8	3.0	2506.0	0.12	97.91
138.0-139.0	40.3	2.9	2508.9	0.11	98.03
139.0-140.0	39.8	2.8	2511.8	0.11	98.14
140.0-141.0	39.3	2.7	2514.5	0.11	98.25
141.0-142.0	38.8	2.6	2517.2	0.10	98.35
142.0-143.0	38.3	2.6	2519.7	0.10	98.45
143.0-144.0	37.8	2.5	2522.2	0.10	98.55

C Plane (°):0.0-360.0: 10.0  
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Gamma Plane (°):0.0-180.0:1.0  
 Test Device: LSG-1700B  
 Distance: 11.700 m  
 Humidity:  
 Inspector:

## Zonal Lumen (Continue 4)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
144.0-145.0	37.3	2.4	2524.6	0.09	98.64
145.0-146.0	36.7	2.3	2526.8	0.09	98.73
146.0-147.0	36.1	2.2	2529.0	0.09	98.81
147.0-148.0	35.6	2.1	2531.1	0.08	98.90
148.0-149.0	35.0	2.0	2533.1	0.08	98.97
149.0-150.0	34.5	1.9	2535.1	0.07	99.05
150.0-151.0	33.9	1.8	2536.9	0.07	99.12
151.0-152.0	33.3	1.7	2538.6	0.07	99.19
152.0-153.0	32.7	1.7	2540.3	0.06	99.25
153.0-154.0	32.2	1.6	2541.9	0.06	99.31
154.0-155.0	31.6	1.5	2543.4	0.06	99.37
155.0-156.0	31.0	1.4	2544.8	0.06	99.43
156.0-157.0	30.4	1.3	2546.1	0.05	99.48
157.0-158.0	29.8	1.3	2547.3	0.05	99.53
158.0-159.0	29.3	1.2	2548.5	0.05	99.58
159.0-160.0	28.8	1.1	2549.6	0.04	99.62
160.0-161.0	28.3	1.0	2550.7	0.04	99.66
161.0-162.0	27.8	1.0	2551.6	0.04	99.70
162.0-163.0	27.3	0.9	2552.5	0.04	99.73
163.0-164.0	26.7	0.8	2553.4	0.03	99.76
164.0-165.0	26.2	0.8	2554.1	0.03	99.79
165.0-166.0	25.6	0.7	2554.8	0.03	99.82
166.0-167.0	25.1	0.6	2555.5	0.03	99.85
167.0-168.0	24.6	0.6	2556.1	0.02	99.87
168.0-169.0	24.1	0.5	2556.6	0.02	99.89
169.0-170.0	23.7	0.5	2557.1	0.02	99.91
170.0-171.0	23.6	0.4	2557.5	0.02	99.93
171.0-172.0	24.0	0.4	2557.9	0.02	99.94
172.0-173.0	24.5	0.4	2558.2	0.01	99.95
173.0-174.0	24.9	0.3	2558.5	0.01	99.97
174.0-175.0	24.8	0.3	2558.8	0.01	99.98
175.0-176.0	24.8	0.2	2559.0	0.01	99.99
176.0-177.0	24.8	0.2	2559.2	0.01	99.99
177.0-178.0	24.8	0.1	2559.3	0.00	100.00
178.0-179.0	24.9	0.1	2559.4	0.00	100.00
179.0-180.0	24.9	0.0	2559.4	0.00	100.00

C Plane (°):0.0-360.0: 10.0  
 Test Lab: LABORATORIO STAND  
 Test Type: TYPE C  
 Temperature: 25.5  
 Operator: Cristian Herrera Arismendy

Gamma Plane (°):0.0-180.0:1.0  
 Test Device: LSG-1700B  
 Distance: 11.700 m  
 Humidity:  
 Inspector: