

Report No.: MSL-282

Test Time: 2021-02-05 10:32

Luminaire Property

Luminaire Manufacturer: Stand Iluminaciones S.A.S

Luminaire Category: Interior

Luminaire Description: Lum Stil Led Riel T5 60cm 10W

Luminous Length (mm): 582

Luminous Width (mm): 15

Luminous Height (mm): 10

Voltage: 120.0 V

Current: 0.088 A

Power: 10.13 W

Power Factor: 0.960

Photometric Results

CIE Class: Semi-Direct

Total Rated Lamp Lumens: 1216.9 lm

Measurement Flux: 1216.9 lm

Efficiency: 100%

Downward Ratio: 87%

Upward Ratio: 13%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 263.8, 158.5, 220.8, 221.3

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 154.3, 108.4, 128.7, 129.0

Luminaire Efficacy Rating (LER): 120.18

Central Intensity: 299.57 cd

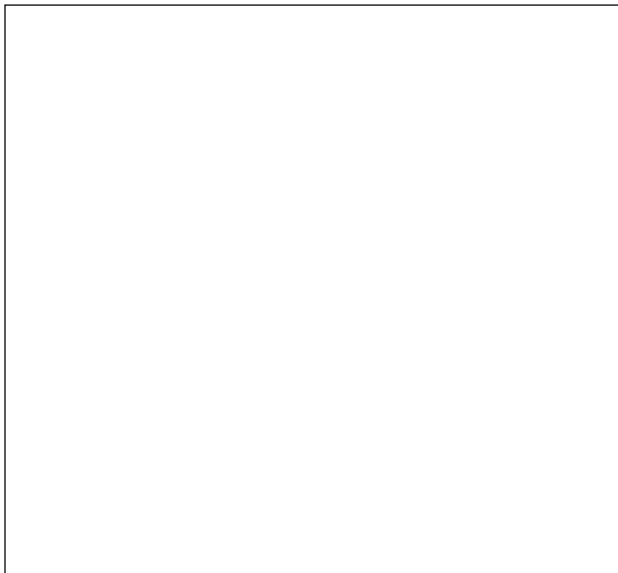
Max. Intensity: 300.67 cd

Pos of Max. Intensity: H70 V0

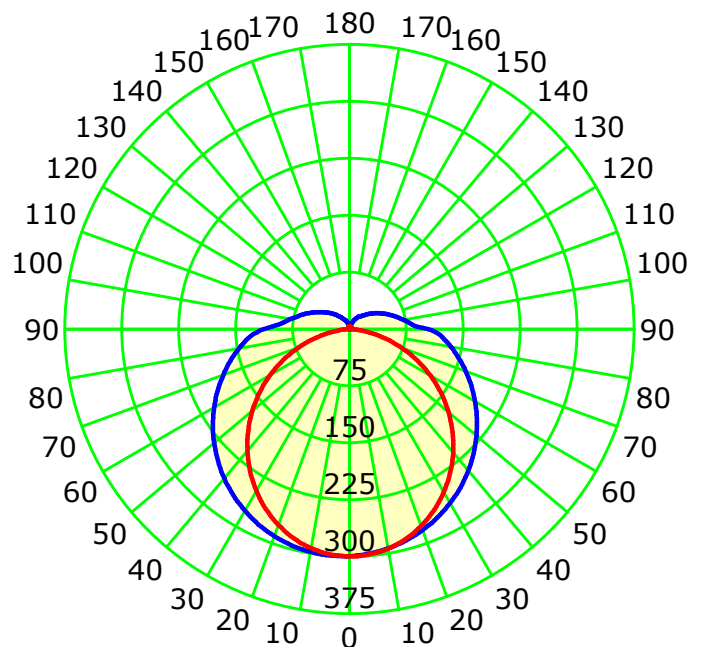
S/MH(C0/C180): 1.35

S/MH(C90/C270): 1.23

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

C Plane (°):0.0-360.0: 10.0

Gamma Plane (°):0.0-180.0:(100%): 131.3°

Test Lab:

Test Device: LSG-1700B

Test Type: TYPE C

Distance: 11.700 m — C90-C270

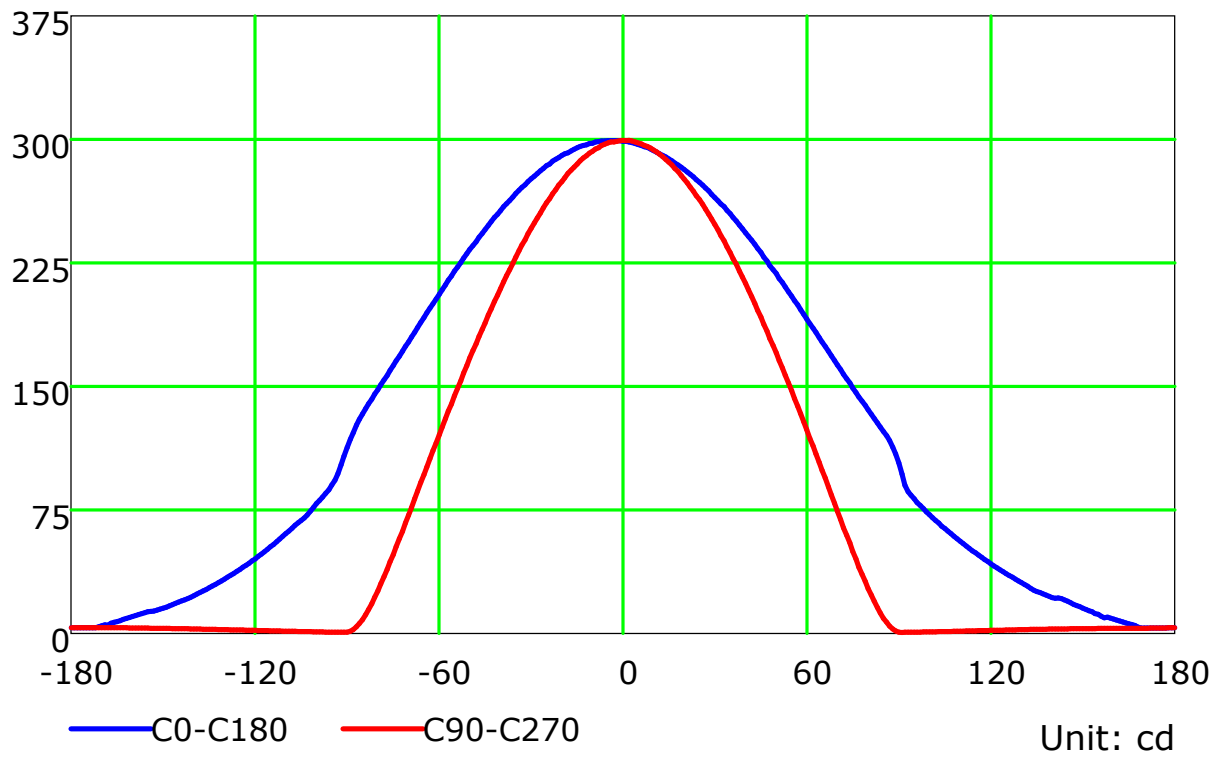
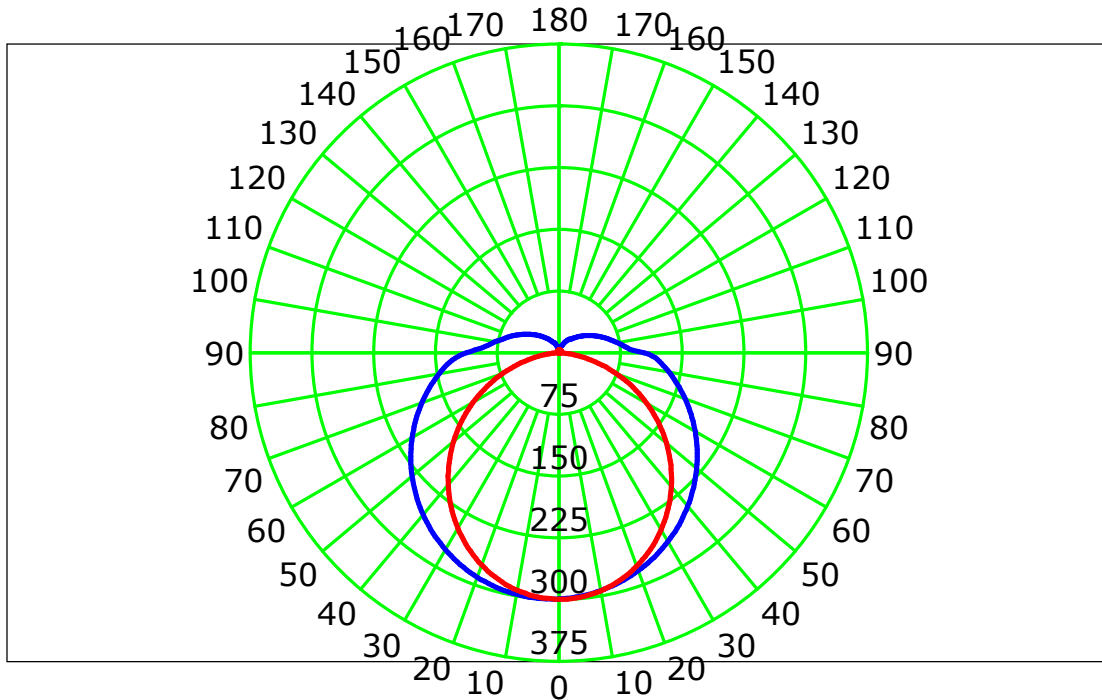
Temperature: 24.8

Humidity:

Operator: Cristian Herrera Arismendy

Inspector:

Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature: 24.8

Operator: Cristian Herrera Arismendy

Gamma Plane (°):0.0-180.0:1.0

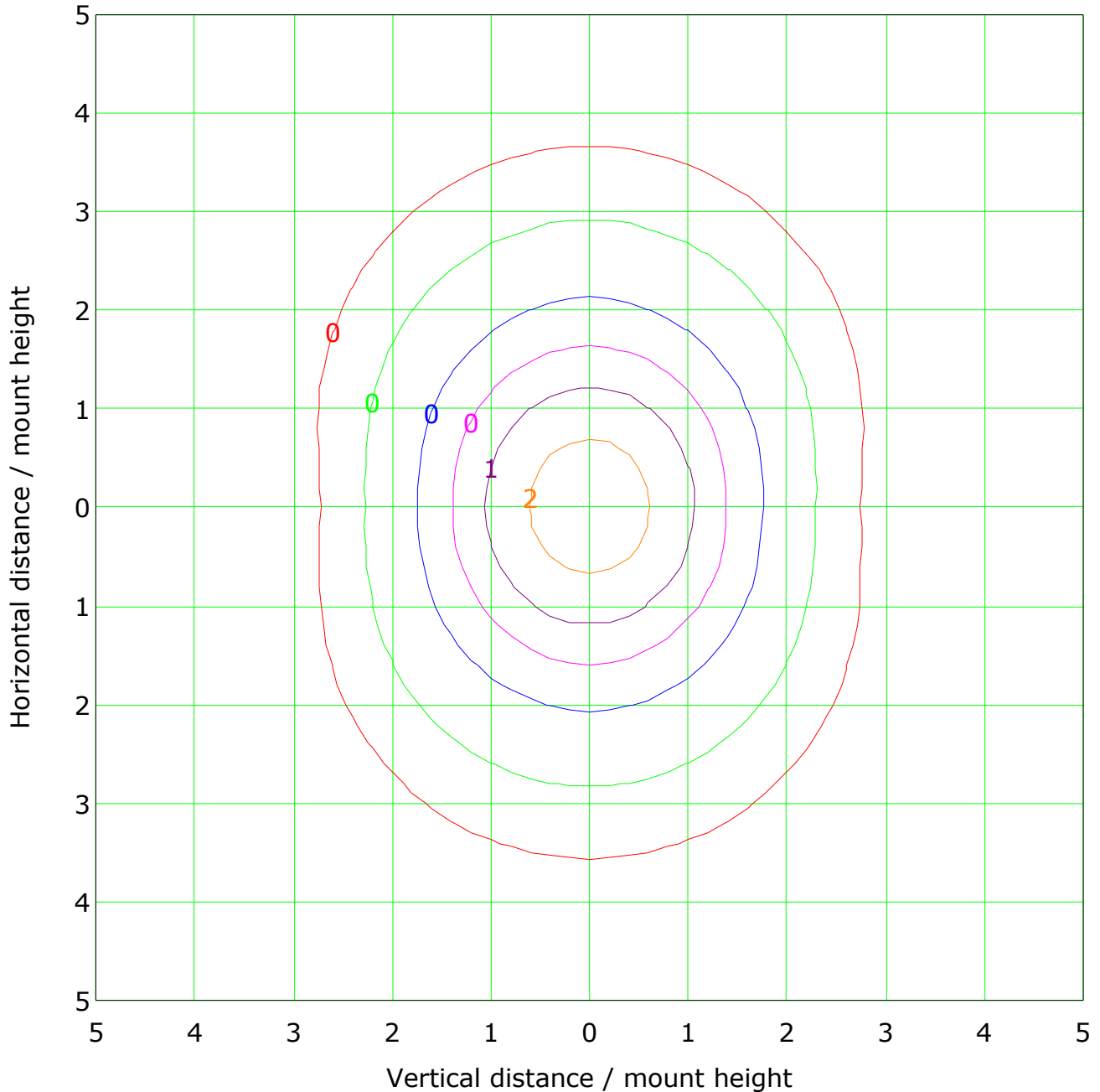
Test Device: LSG-1700B

Distance: 11.700 m

Humidity:

Inspector:

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 3.0 lx

— (1%): 0.0 lx — (2%): 0.1 lx
— (5%): 0.2 lx — (10%): 0.6 lx
— (100%): 3.0 lx

C Plane (°): 0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C
 Temperature: 24.8

Operator: Cristian Herrera Arismendy

Gamma Plane (°): 0.0-180.0: 1.0

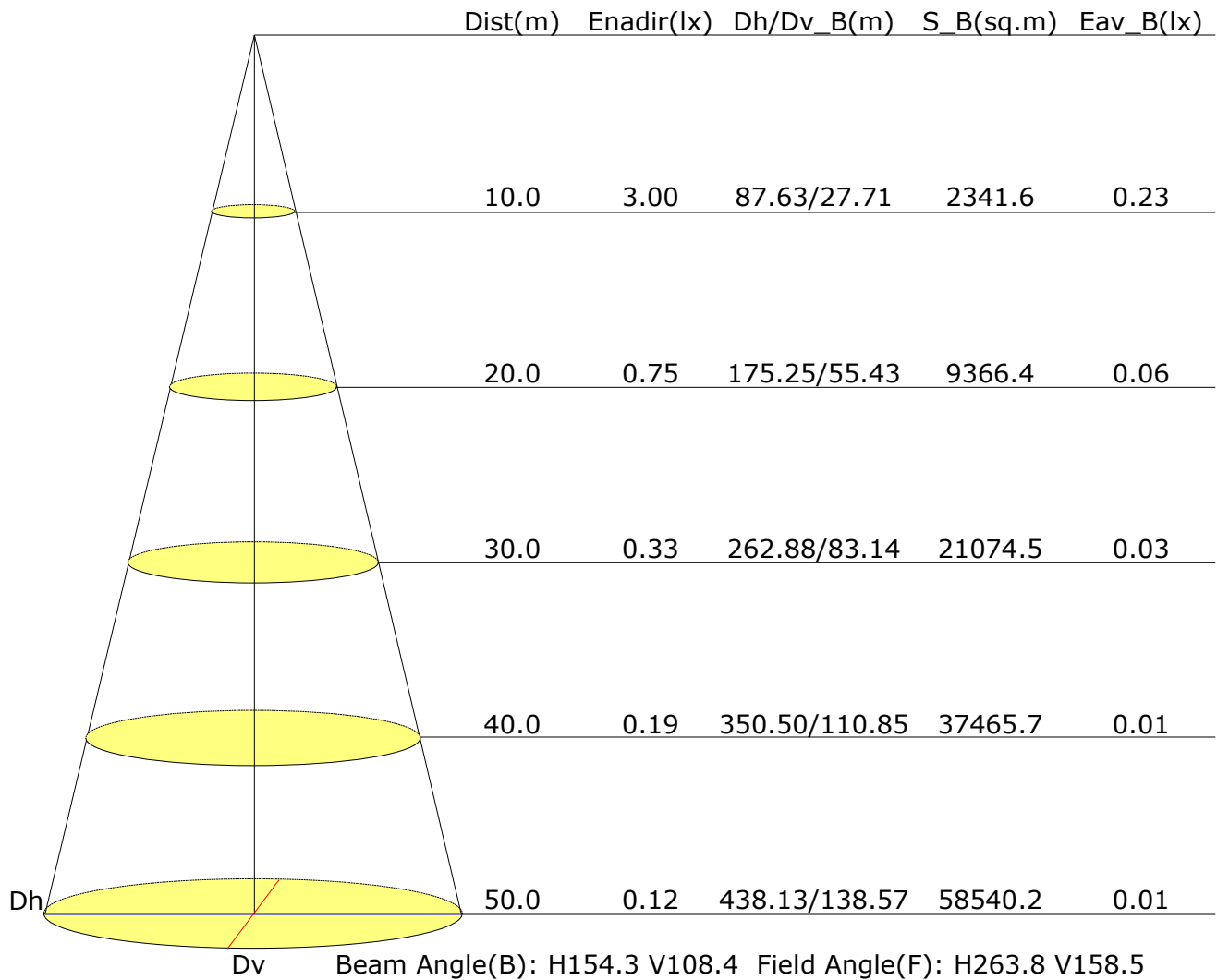
Test Device: LSG-1700B lx

Distance: 11.700 m

Humidity:

Inspector:

Illuminance at a Distance



C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature: 24.8

Operator: Cristian Herrera Arismendy

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1700B

Distance: 11.700 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	22.6	24.0	23.1	24.4	24.9	22.1	23.4	22.6	23.9	24.4					
3H	24.7	25.9	25.2	26.4	26.9	23.5	24.7	24.0	25.2	25.8					
4H	25.7	26.9	26.3	27.4	27.9	24.1	25.2	24.6	25.7	26.3					
6H	26.7	27.8	27.3	28.3	28.9	24.4	25.5	24.9	26.0	26.6					
8H	27.2	28.3	27.8	28.8	29.4	24.5	25.5	25.0	26.1	26.7					
12H	27.7	28.7	28.2	29.2	29.8	24.5	25.5	25.1	26.1	26.7					
X=4H Y=2H	23.2	24.4	23.8	24.9	25.5	22.8	23.9	23.3	24.4	25.0					
3H	25.5	26.5	26.1	27.1	27.7	24.5	25.4	25.0	26.0	26.6					
4H	26.7	27.6	27.3	28.2	28.8	25.2	26.0	25.7	26.6	27.3					
6H	27.9	28.7	28.5	29.3	30.0	25.7	26.5	26.3	27.1	27.7					
8H	28.5	29.3	29.1	29.9	30.6	25.8	26.5	26.4	27.2	27.8					
12H	29.1	29.8	29.7	30.4	31.1	25.9	26.6	26.5	27.2	27.9					
X=8H Y=4H	27.1	27.8	27.7	28.4	29.1	25.7	26.5	26.3	27.1	27.8					
6H	28.5	29.1	29.1	29.7	30.5	26.5	27.1	27.1	27.7	28.4					
8H	29.2	29.8	29.9	30.4	31.2	26.8	27.3	27.4	28.0	28.7					
12H	30.0	30.5	30.7	31.2	31.9	27.0	27.4	27.6	28.1	28.9					
X=12H Y=4H	27.1	27.8	27.7	28.4	29.1	25.8	26.5	26.5	27.1	27.8					
6H	28.6	29.1	29.3	29.8	30.5	26.7	27.3	27.4	27.9	28.7					
8H	29.4	29.9	30.1	30.6	31.3	27.1	27.6	27.8	28.3	29.0					
Variations with the observer position at spacings:															
S=1.0H						+0.3/-0.3					+0.2/-0.1				
S=1.5H						+0.4/-0.5					+0.3/-0.3				
S=2.0H						+0.5/-0.8					+0.5/-0.7				

Calculate in accordance with CIE Pub.117. The table is revised with 1217lm ($8\log(F/F_0) = 0.7$).

Zonal Lumen

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	300.0	0.3	0.3	0.02	0.02
1.0-2.0	299.9	0.9	1.1	0.07	0.09
2.0-3.0	299.7	1.4	2.6	0.12	0.21
3.0-4.0	299.4	2.0	4.6	0.16	0.38
4.0-5.0	299.0	2.6	7.2	0.21	0.59
5.0-6.0	298.6	3.1	10.3	0.26	0.85
6.0-7.0	298.0	3.7	14.0	0.30	1.15
7.0-8.0	297.4	4.3	18.3	0.35	1.50
8.0-9.0	296.6	4.8	23.1	0.40	1.89
9.0-10.0	295.7	5.4	28.4	0.44	2.33
10.0-11.0	294.8	5.9	34.3	0.48	2.82
11.0-12.0	293.7	6.4	40.7	0.53	3.35
12.0-13.0	292.6	6.9	47.7	0.57	3.92
13.0-14.0	291.4	7.5	55.1	0.61	4.53
14.0-15.0	290.1	8.0	63.1	0.65	5.18
15.0-16.0	288.7	8.5	71.6	0.70	5.88
16.0-17.0	287.2	8.9	80.5	0.73	6.61
17.0-18.0	285.7	9.4	89.9	0.77	7.39
18.0-19.0	284.0	9.9	99.8	0.81	8.20
19.0-20.0	282.3	10.3	110.1	0.85	9.05
20.0-21.0	280.5	10.8	120.9	0.89	9.94
21.0-22.0	278.6	11.2	132.1	0.92	10.86
22.0-23.0	276.6	11.6	143.7	0.95	11.81
23.0-24.0	274.5	12.0	155.7	0.99	12.80
24.0-25.0	272.4	12.4	168.1	1.02	13.81
25.0-26.0	270.3	12.8	180.9	1.05	14.86
26.0-27.0	268.1	13.1	194.0	1.08	15.94
27.0-28.0	265.7	13.5	207.4	1.11	17.05
28.0-29.0	263.4	13.8	221.2	1.13	18.18
29.0-30.0	260.9	14.1	235.3	1.16	19.34
30.0-31.0	258.4	14.4	249.7	1.18	20.52
31.0-32.0	255.7	14.7	264.3	1.20	21.72
32.0-33.0	253.0	14.9	279.2	1.23	22.95
33.0-34.0	250.4	15.2	294.4	1.25	24.19
34.0-35.0	247.6	15.4	309.8	1.26	25.46
35.0-36.0	244.8	15.6	325.4	1.28	26.74

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature: 24.8

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	241.9	15.8	341.2	1.30	28.03
37.0-38.0	239.0	16.0	357.1	1.31	29.35
38.0-39.0	236.0	16.1	373.2	1.32	30.67
39.0-40.0	233.0	16.2	389.5	1.34	32.01
40.0-41.0	229.9	16.4	405.8	1.35	33.35
41.0-42.0	226.9	16.5	422.3	1.35	34.70
42.0-43.0	223.6	16.6	438.9	1.36	36.07
43.0-44.0	220.4	16.6	455.5	1.37	37.43
44.0-45.0	217.2	16.7	472.2	1.37	38.81
45.0-46.0	213.8	16.7	489.0	1.37	40.18
46.0-47.0	210.5	16.7	505.7	1.38	41.56
47.0-48.0	207.2	16.7	522.4	1.38	42.93
48.0-49.0	203.8	16.7	539.2	1.38	44.31
49.0-50.0	200.4	16.7	555.9	1.37	45.68
50.0-51.0	197.0	16.7	572.6	1.37	47.05
51.0-52.0	193.5	16.6	589.2	1.36	48.41
52.0-53.0	190.0	16.5	605.7	1.36	49.77
53.0-54.0	186.5	16.4	622.1	1.35	51.12
54.0-55.0	183.0	16.3	638.5	1.34	52.47
55.0-56.0	179.4	16.2	654.7	1.33	53.80
56.0-57.0	175.8	16.1	670.8	1.32	55.12
57.0-58.0	172.3	15.9	686.7	1.31	56.43
58.0-59.0	168.7	15.8	702.5	1.30	57.73
59.0-60.0	165.0	15.6	718.1	1.28	59.01
60.0-61.0	161.4	15.4	733.5	1.27	60.27
61.0-62.0	157.7	15.2	748.7	1.25	61.52
62.0-63.0	154.2	15.0	763.7	1.23	62.75
63.0-64.0	150.6	14.8	778.4	1.21	63.97
64.0-65.0	147.0	14.5	793.0	1.20	65.16
65.0-66.0	143.5	14.3	807.3	1.18	66.34
66.0-67.0	139.8	14.1	821.4	1.16	67.50
67.0-68.0	136.2	13.8	835.2	1.13	68.63
68.0-69.0	132.6	13.5	848.7	1.11	69.74
69.0-70.0	129.0	13.2	861.9	1.09	70.83
70.0-71.0	125.6	13.0	874.9	1.07	71.90
71.0-72.0	122.1	12.7	887.6	1.04	72.94

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature: 24.8

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	118.6	12.4	900.0	1.02	73.96
73.0-74.0	115.3	12.1	912.1	1.00	74.96
74.0-75.0	111.8	11.8	924.0	0.97	75.93
75.0-76.0	108.5	11.5	935.5	0.95	76.87
76.0-77.0	105.1	11.2	946.7	0.92	77.79
77.0-78.0	101.9	10.9	957.6	0.90	78.69
78.0-79.0	98.8	10.6	968.2	0.87	79.56
79.0-80.0	95.6	10.3	978.5	0.85	80.41
80.0-81.0	92.5	10.0	988.5	0.82	81.23
81.0-82.0	89.5	9.7	998.2	0.80	82.03
82.0-83.0	86.5	9.4	1007.6	0.77	82.80
83.0-84.0	83.6	9.1	1016.8	0.75	83.55
84.0-85.0	80.7	8.8	1025.6	0.72	84.28
85.0-86.0	77.8	8.5	1034.1	0.70	84.98
86.0-87.0	75.0	8.2	1042.3	0.67	85.65
87.0-88.0	71.8	7.9	1050.2	0.65	86.30
88.0-89.0	68.1	7.5	1057.6	0.61	86.91
89.0-90.0	63.7	7.0	1064.6	0.57	87.48
90.0-91.0	58.7	6.4	1071.0	0.53	88.01
91.0-92.0	54.2	5.9	1077.0	0.49	88.50
92.0-93.0	50.7	5.6	1082.6	0.46	88.96
93.0-94.0	48.3	5.3	1087.8	0.43	89.39
94.0-95.0	46.6	5.1	1092.9	0.42	89.81
95.0-96.0	45.0	4.9	1097.9	0.40	90.22
96.0-97.0	43.6	4.7	1102.6	0.39	90.61
97.0-98.0	42.2	4.6	1107.2	0.38	90.98
98.0-99.0	40.8	4.4	1111.6	0.36	91.35
99.0-100.0	39.5	4.3	1115.9	0.35	91.70
100.0-101.0	38.2	4.1	1120.0	0.34	92.04
101.0-102.0	37.1	4.0	1124.0	0.33	92.37
102.0-103.0	36.1	3.9	1127.9	0.32	92.68
103.0-104.0	35.2	3.8	1131.6	0.31	92.99
104.0-105.0	34.4	3.7	1135.3	0.30	93.29
105.0-106.0	33.6	3.6	1138.8	0.29	93.58
106.0-107.0	32.9	3.5	1142.3	0.28	93.87
107.0-108.0	32.1	3.4	1145.7	0.28	94.14

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature: 24.8

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	31.2	3.2	1148.9	0.27	94.41
109.0-110.0	30.3	3.1	1152.0	0.26	94.67
110.0-111.0	29.5	3.0	1155.1	0.25	94.92
111.0-112.0	28.6	2.9	1158.0	0.24	95.16
112.0-113.0	27.9	2.8	1160.8	0.23	95.39
113.0-114.0	27.1	2.7	1163.5	0.22	95.61
114.0-115.0	26.1	2.6	1166.1	0.21	95.83
115.0-116.0	25.1	2.5	1168.6	0.20	96.03
116.0-117.0	24.0	2.4	1171.0	0.19	96.23
117.0-118.0	22.9	2.2	1173.2	0.18	96.41
118.0-119.0	22.1	2.1	1175.3	0.17	96.58
119.0-120.0	21.3	2.0	1177.4	0.17	96.75
120.0-121.0	20.6	1.9	1179.3	0.16	96.91
121.0-122.0	19.9	1.9	1181.2	0.15	97.06
122.0-123.0	19.3	1.8	1183.0	0.15	97.21
123.0-124.0	18.9	1.7	1184.7	0.14	97.35
124.0-125.0	18.4	1.7	1186.4	0.14	97.49
125.0-126.0	17.9	1.6	1188.0	0.13	97.62
126.0-127.0	17.4	1.5	1189.5	0.13	97.75
127.0-128.0	17.0	1.5	1191.0	0.12	97.87
128.0-129.0	16.6	1.4	1192.4	0.12	97.98
129.0-130.0	16.2	1.4	1193.8	0.11	98.10
130.0-131.0	15.8	1.3	1195.1	0.11	98.21
131.0-132.0	15.5	1.3	1196.3	0.10	98.31
132.0-133.0	15.1	1.2	1197.6	0.10	98.41
133.0-134.0	14.7	1.2	1198.7	0.10	98.51
134.0-135.0	14.4	1.1	1199.9	0.09	98.60
135.0-136.0	14.0	1.1	1200.9	0.09	98.69
136.0-137.0	13.7	1.0	1202.0	0.08	98.77
137.0-138.0	13.3	1.0	1203.0	0.08	98.85
138.0-139.0	13.0	0.9	1203.9	0.08	98.93
139.0-140.0	12.7	0.9	1204.8	0.07	99.00
140.0-141.0	12.4	0.9	1205.7	0.07	99.08
141.0-142.0	12.1	0.8	1206.5	0.07	99.14
142.0-143.0	11.8	0.8	1207.3	0.06	99.21
143.0-144.0	11.4	0.7	1208.0	0.06	99.27

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature: 24.8

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 4)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
144.0-145.0	11.1	0.7	1208.7	0.06	99.33
145.0-146.0	10.8	0.7	1209.4	0.05	99.38
146.0-147.0	10.4	0.6	1210.0	0.05	99.43
147.0-148.0	10.1	0.6	1210.6	0.05	99.48
148.0-149.0	9.7	0.6	1211.2	0.05	99.53
149.0-150.0	9.3	0.5	1211.7	0.04	99.57
150.0-151.0	9.0	0.5	1212.2	0.04	99.61
151.0-152.0	8.7	0.5	1212.6	0.04	99.65
152.0-153.0	8.4	0.4	1213.1	0.03	99.68
153.0-154.0	8.0	0.4	1213.5	0.03	99.72
154.0-155.0	7.7	0.4	1213.8	0.03	99.75
155.0-156.0	7.4	0.3	1214.2	0.03	99.77
156.0-157.0	7.0	0.3	1214.5	0.03	99.80
157.0-158.0	6.7	0.3	1214.7	0.02	99.82
158.0-159.0	6.4	0.3	1215.0	0.02	99.84
159.0-160.0	6.1	0.2	1215.2	0.02	99.86
160.0-161.0	5.8	0.2	1215.4	0.02	99.88
161.0-162.0	5.5	0.2	1215.6	0.02	99.90
162.0-163.0	5.3	0.2	1215.8	0.01	99.91
163.0-164.0	5.0	0.2	1216.0	0.01	99.92
164.0-165.0	4.7	0.1	1216.1	0.01	99.93
165.0-166.0	4.4	0.1	1216.2	0.01	99.94
166.0-167.0	4.2	0.1	1216.3	0.01	99.95
167.0-168.0	3.9	0.1	1216.4	0.01	99.96
168.0-169.0	3.7	0.1	1216.5	0.01	99.97
169.0-170.0	3.6	0.1	1216.6	0.01	99.97
170.0-171.0	3.5	0.1	1216.6	0.01	99.98
171.0-172.0	3.5	0.1	1216.7	0.00	99.98
172.0-173.0	3.4	0.0	1216.8	0.00	99.99
173.0-174.0	3.5	0.0	1216.8	0.00	99.99
174.0-175.0	3.5	0.0	1216.8	0.00	99.99
175.0-176.0	3.5	0.0	1216.9	0.00	100.00
176.0-177.0	3.5	0.0	1216.9	0.00	100.00
177.0-178.0	3.5	0.0	1216.9	0.00	100.00
178.0-179.0	3.5	0.0	1216.9	0.00	100.00
179.0-180.0	3.5	0.0	1216.9	0.00	100.00

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature: 24.8

Operator: Cristian Herrera Arismendy

Gamma Plane (°):0.0-180.0:1.0

Test Device: LSG-1700B

Distance: 11.700 m

Humidity:

Inspector: