

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO

Report Number: P886872

Luminaire Tested: ML412LSFL95FS1E-TIR4D25NFL-TL4RDSL-1020LM-3500K

Issue Date: 7/18/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886872  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-37)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 7/18/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML412LSFL95FS1E-TIR4D25NFL-TL4RDSL-1020LM-3500K  
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, METALLIC SILVER TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 3500K CCT  
Ballast/Driver: -

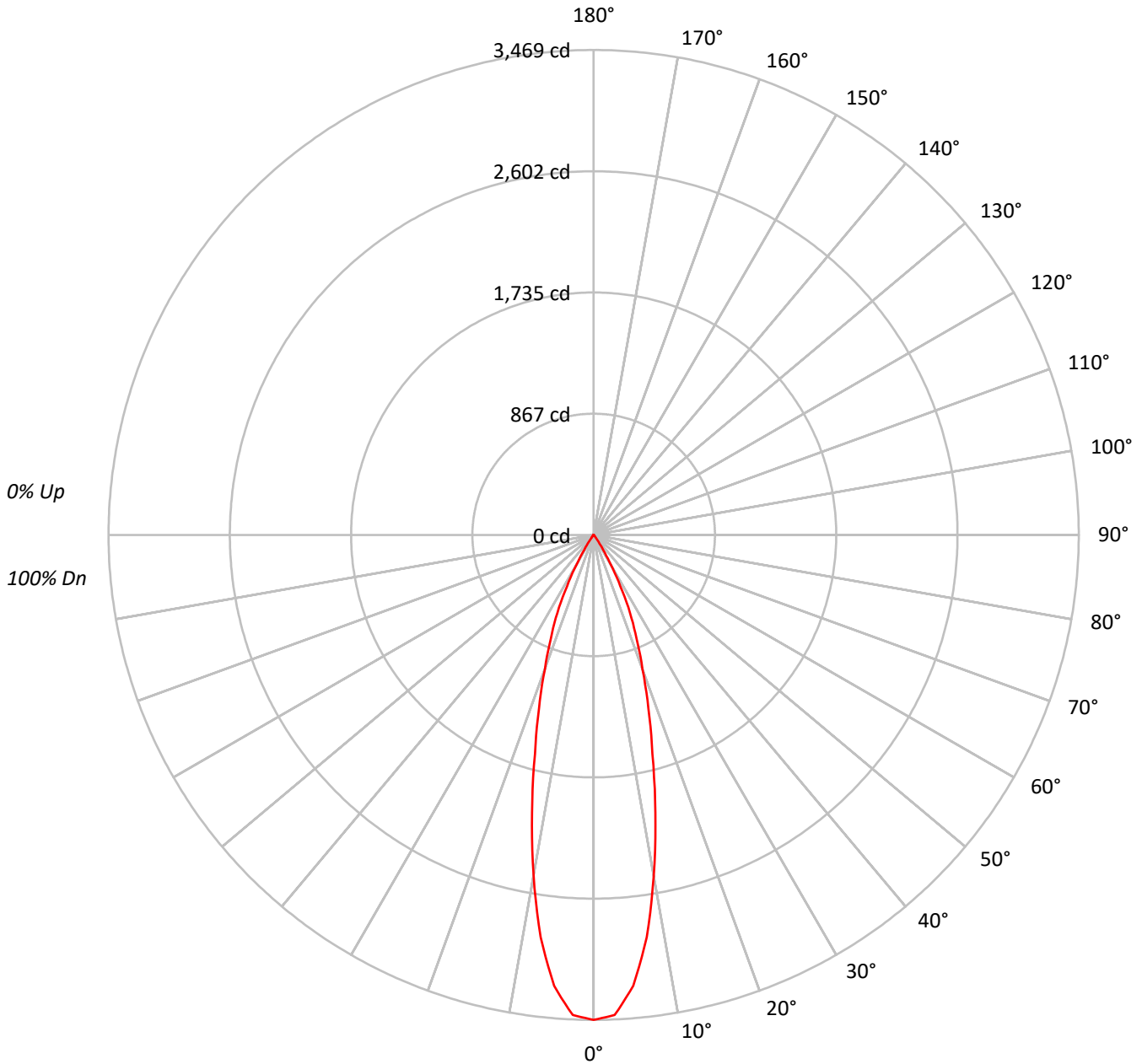
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1078.2 lumens  
Efficiency: N/A  
Efficacy: 61.3 lumens/watt  
Spacing Criteria (0/90/45): 0.48 / 0.48 / 0.51  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100																
1	115	112	110	109	112	110	108	107	106	105	104	103	101	100	99	98	98	96			96																
2	110	107	103	101	108	105	102	100	102	99	97	99	97	95	96	95	93	92			92																
3	107	101	98	94	105	100	97	94	98	95	92	95	93	91	93	91	89	88			88																
4	103	97	93	89	101	96	92	89	94	90	88	92	89	87	90	88	86	85			85																
5	99	93	88	85	98	92	88	85	90	87	84	89	86	83	87	85	82	81			81																
6	96	89	84	81	95	88	84	81	87	83	80	86	82	80	84	82	79	78			78																
7	93	86	81	78	92	85	81	78	84	80	77	83	79	77	82	79	76	75			75																
8	90	82	78	75	89	82	78	75	81	77	74	80	77	74	79	76	74	73			73																
9	87	80	75	72	86	79	75	72	78	74	72	77	74	71	77	74	71	70			70																
10	84	77	72	69	83	76	72	69	76	72	69	75	71	69	74	71	69	68			68																

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	427898
5°	401018
10°	310015
15°	207163
20°	133966
25°	83700
30°	34467
35°	9306
40°	2818
45°	1605
50°	959
55°	903
60°	617
65°	496
70°	613
75°	381
80°	568
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1605 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	284.3	26.4
10°-20°	454.2	42.1
20°-30°	274.1	25.4
30°-40°	51.8	4.8
40°-50°	7.4	0.7
50°-60°	3.4	0.3
60°-70°	2.0	0.2
70°-80°	1.0	0.1
80°-90°	0.1	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1012.5	93.9
0°-40°	1064.3	98.7
0°-60°	1075.2	99.7
0°-90°	1078.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1078.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3469	
5°	3239	284
15°	1622	454
25°	615	274
35°	62	52
45°	9	7
55°	4	3
65°	2	2
75°	1	1
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	3469.1
2.5°	3437.4
5°	3238.8
7.5°	2902.5
10°	2475.2
12.5°	2036.2
15°	1622.3
17.5°	1300.2
20°	1020.6
22.5°	800.3
25°	615.0
27.5°	413.1
30°	242.0
32.5°	128.5
35°	61.8
37.5°	26.7
40°	17.5
42.5°	11.7
45°	9.2
47.5°	6.7
50°	5.0
52.5°	4.2
55°	4.2
57.5°	3.3
60°	2.5
62.5°	2.5
65°	1.7
67.5°	1.7
70°	1.7
72.5°	0.8
75°	0.8
77.5°	0.8
80°	0.8
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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— 0°-180°

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(END OF REPORT)