

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: P886894

Luminaire Tested: ML412LSFL95FS1E-TIR4D40FL-TL4RDMB-1020LM-5000K

Issue Date: 7/9/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P886894  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-41)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 7/9/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ML412LSFL95FS1E-TIR4D40FL-TL4RDMB-1020LM-5000K  
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 40D TIR, MATTE BLACK TRIM  
Light Source: (1) HCL SELECTABLE LUMEN LED 95CRI / 5000K CCT  
Ballast/Driver: -

**Summary**

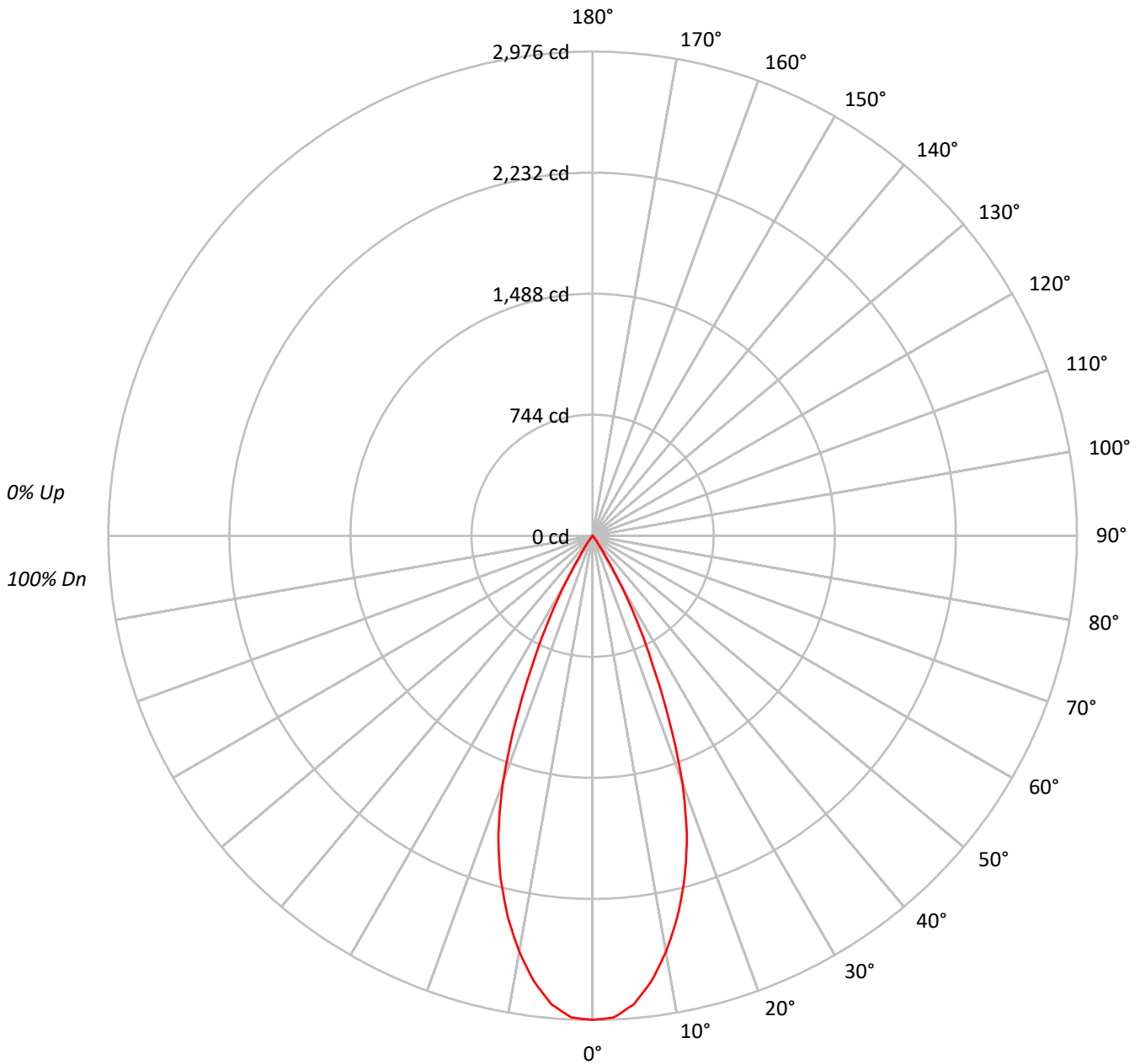
Lumens per Lamp: N/A  
Luminaire Lumens: 1326.9 lumens  
Efficiency: N/A  
Efficacy: 75.4 lumens/watt  
Spacing Criteria (0/90/45): 0.68 / 0.68 / 0.64  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 17.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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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CATALOG NUMBER: ML412LSFL95FS1E-TIR4D40FL-TL4RDDB-1020LM-5000K

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

RF	20				20				20				20				20				
RC	80				70				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			
1	115	112	110	108	112	110	108	107	106	105	103	102	101	100	99	98	97	96			
2	110	106	103	100	108	105	102	99	101	99	97	99	97	95	96	94	93	92			
3	106	101	97	94	104	100	96	93	97	94	92	95	92	90	93	91	89	88			
4	102	96	92	89	101	95	91	88	93	90	87	91	88	86	90	87	85	84			
5	99	92	87	84	97	91	87	84	89	86	83	88	85	82	86	84	81	80			
6	95	88	83	80	94	87	83	80	86	82	79	85	81	79	83	80	78	77			
7	92	84	80	76	90	84	79	76	83	79	76	81	78	75	80	77	75	74			
8	88	81	76	73	87	80	76	73	79	75	73	79	75	72	78	74	72	71			
9	85	78	73	70	84	77	73	70	77	72	70	76	72	69	75	72	69	68			
10	83	75	70	67	82	74	70	67	74	70	67	73	69	67	72	69	67	66			

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

	0°
0°	367015
5°	358029
10°	325045
15°	278647
20°	211266
25°	118391
30°	46360
35°	7830
40°	1465
45°	157
50°	0
55°	0
60°	0
65°	0
70°	0
75°	0
80°	0
85°	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 157 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	266.3	20.1
10°-20°	596.4	44.9
20°-30°	405.3	30.5
30°-40°	57.1	4.3
40°-50°	1.7	0.1
50°-60°	0.0	0.0
60°-70°	0.0	0.0
70°-80°	0.0	0.0
80°-90°	0.0	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°	1268.1	95.6
0°-40°	1325.2	99.9
0°-60°	1326.9	100.0
0°-90°	1326.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1326.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2976	
5°	2892	266
15°	2182	596
25°	870	405
35°	52	57
45°	1	2
55°	0	0
65°	0	0
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2975.5
2.5°	2963.6
5°	2891.6
7.5°	2762.1
10°	2595.2
12.5°	2402.8
15°	2182.1
17.5°	1926.8
20°	1609.5
22.5°	1232.9
25°	869.9
27.5°	583.6
30°	325.5
32.5°	144.1
35°	52.0
37.5°	22.8
40°	9.1
42.5°	3.6
45°	0.9
47.5°	0.0
50°	0.0
52.5°	0.0
55°	0.0
57.5°	0.0
60°	0.0
62.5°	0.0
65°	0.0
67.5°	0.0
70°	0.0
72.5°	0.0
75°	0.0
77.5°	0.0
80°	0.0
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)