

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: P887031

Luminaire Tested: ML412LSFL9FS1E-TIR4D40FL-TL4RDSL-1200LM-3000K

Issue Date: 7/9/2024

Test Information

Test Method: LM-79-2019
Report Number: P887031
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-40)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/9/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML412LSFL9FS1E-TIR4D40FL-TL4RDSL-1200LM-3000K
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 40D TIR, METALLIC SILVER TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1546.4 lumens
Efficiency: N/A
Efficacy: 87.9 lumens/watt
Spacing Criteria (0/90/45): 0.67 / 0.67 / 0.63
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

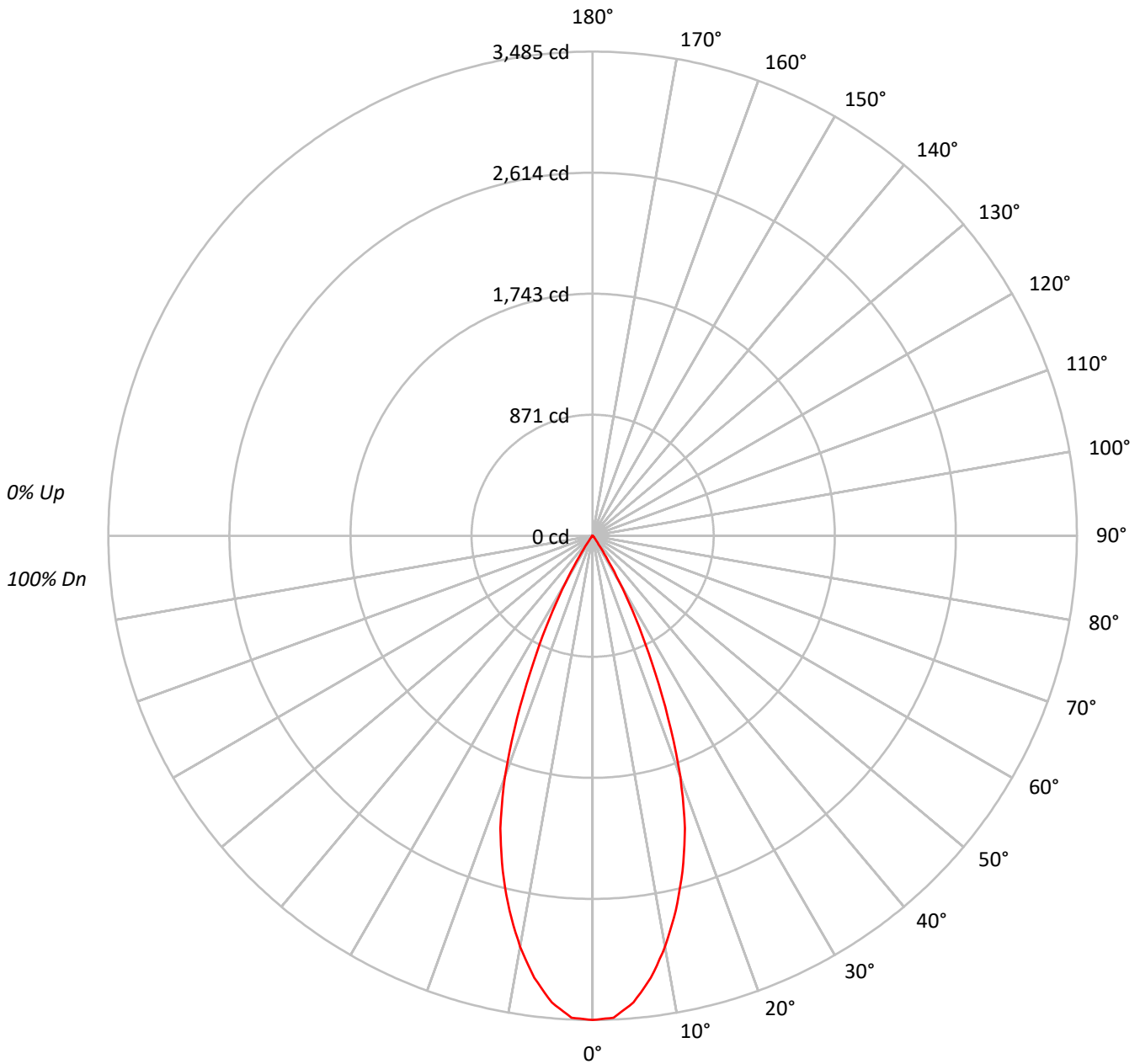
Input Watts (W): 17.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	108	112	110	108	106	106	105	103	102	101	100	99	98	97	96			96																
2	110	106	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91			91																
3	106	101	97	94	104	99	96	93	97	94	91	95	92	90	92	90	89	87			87																
4	102	96	92	88	100	95	91	88	93	89	87	91	88	86	89	87	85	83			83																
5	98	92	87	83	97	91	86	83	89	85	82	88	84	82	86	83	81	80			80																
6	95	88	83	79	93	87	82	79	85	82	79	84	81	78	83	80	78	76			76																
7	91	84	79	76	90	83	79	76	82	78	75	81	77	75	80	77	74	73			73																
8	88	81	76	72	87	80	75	72	79	75	72	78	74	72	77	74	71	70			70																
9	85	77	73	69	84	77	72	69	76	72	69	75	72	69	75	71	69	68			68																
10	82	74	70	67	81	74	70	67	73	69	66	73	69	66	72	69	66	65			65																

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	429860
5°	417473
10°	376109
15°	319140
20°	242047
25°	136832
30°	54877
35°	10706
40°	2979
45°	1256
50°	787
55°	667
60°	518
65°	613
70°	361
75°	477
80°	710
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1256 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	309.9	20.0
10°-20°	684.8	44.3
20°-30°	467.0	30.2
30°-40°	72.4	4.7
40°-50°	6.4	0.4
50°-60°	3.0	0.2
60°-70°	1.7	0.1
70°-80°	1.1	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°	1461.6	94.5
0°-40°	1534.1	99.2
0°-60°	1543.5	99.8
0°-90°	1546.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1546.4	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	3485	
5°	3372	310
15°	2499	685
25°	1005	467
35°	71	72
45°	7	6
55°	3	3
65°	2	2
75°	1	1
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

0°	
0°	3485.0
2.5°	3471.6
5°	3371.7
7.5°	3208.9
10°	3002.9
12.5°	2763.9
15°	2499.2
17.5°	2208.7
20°	1844.0
22.5°	1418.5
25°	1005.4
27.5°	669.6
30°	385.3
32.5°	178.2
35°	71.1
37.5°	36.1
40°	18.5
42.5°	10.3
45°	7.2
47.5°	5.2
50°	4.1
52.5°	4.1
55°	3.1
57.5°	3.1
60°	2.1
62.5°	2.1
65°	2.1
67.5°	1.0
70°	1.0
72.5°	1.0
75°	1.0
77.5°	1.0
80°	1.0
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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