

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: P886987

Luminaire Tested: ML412LSFL9FS1E-TIR4D25NFL-TL4RDMB-720LM-3500K

Issue Date: 7/18/2024

Test Information

Test Method: LM-79-2019
Report Number: P886987
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2402-314-38)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 7/18/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: ML412LSFL9FS1E-TIR4D25NFL-TL4RDMB-720LM-3500K
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 25D TIR, MATTE BLACK TRIM
Light Source: (1) STANDARD SELECTABLE LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 840.8 lumens
Efficiency: N/A
Efficacy: 80.1 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

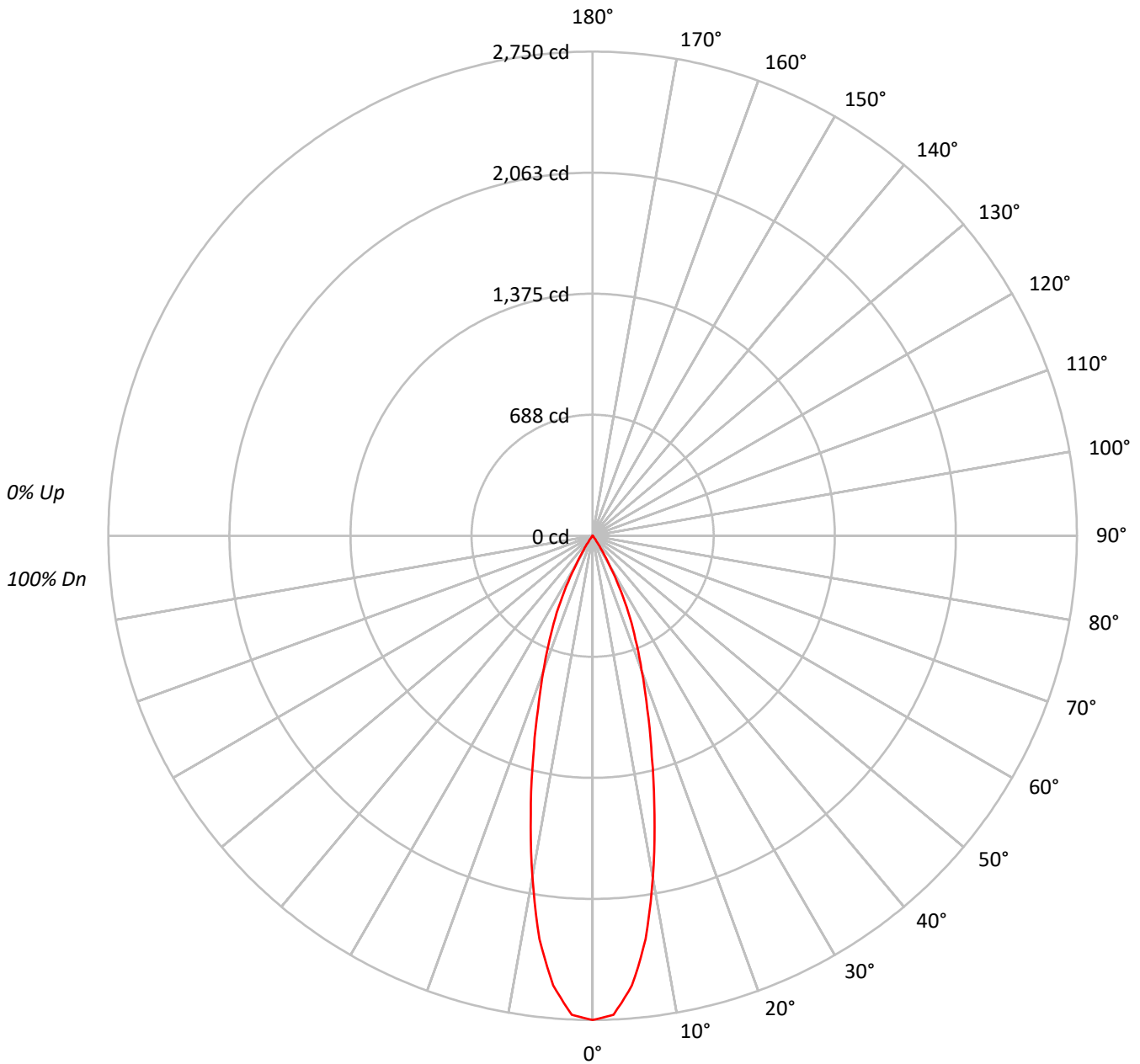
Input Watts (W): 10.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	115	113	111	109	112	110	109	107	106	105	104		103	102	101		99	99	98	96
2	111	107	104	101	109	105	102	100	102	100	98		99	97	96		97	95	94	92
3	107	102	98	95	105	101	97	94	98	95	93		96	93	91		94	92	90	89
4	103	97	93	90	102	96	93	90	94	91	89		93	90	88		91	88	87	85
5	100	93	89	86	98	93	88	85	91	87	85		89	86	84		88	85	83	82
6	96	90	85	82	95	89	85	82	88	84	81		86	83	81		85	82	80	79
7	93	86	82	79	92	86	82	78	85	81	78		84	80	78		83	80	77	76
8	90	83	79	76	89	83	78	76	82	78	75		81	77	75		80	77	75	74
9	88	80	76	73	87	80	76	73	79	75	73		78	75	72		78	74	72	71
10	85	78	73	70	84	77	73	70	77	73	70		76	72	70		75	72	70	69

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	339200
5°	317516
10°	246639
15°	166146
20°	106913
25°	65476
30°	25936
35°	5903
40°	998
45°	244
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: 244 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.7	26.8
10°-20°	362.0	43.1
20°-30°	215.9	25.7
30°-40°	35.5	4.2
40°-50°	1.6	0.2
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°	803.7	95.6
0°-40°	839.2	99.8
0°-60°	840.8	100.0
0°-90°	840.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	840.8	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	2750	
5°	2564	226
15°	1301	362
25°	481	216
35°	39	35
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°	2750.0
2.5°	2723.2
5°	2564.4
7.5°	2310.1
10°	1969.2
12.5°	1622.1
15°	1301.1
17.5°	1031.0
20°	814.5
22.5°	635.8
25°	481.1
27.5°	324.4
30°	182.1
32.5°	92.1
35°	39.2
37.5°	13.7
40°	6.2
42.5°	3.4
45°	1.4
47.5°	0.7
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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