

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: P887109

Luminaire Tested: ML412LSFLD2W1E-TIR4D40FL-TL4RDSL-600LM-3000K

Issue Date: 7/9/2024

Test Information

Test Method: LM-79-2019
Report Number: P887109
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: ML412LSFLD2W1E-TIR4D40FL-TL4RDSL-600LM-3000K
Description: 4IN ROUND ML FLEX, SELECTABLE CCT, WITH 40D TIR, METALLIC SILVER TRIM
Light Source: (1) D2W LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 829.3 lumens
Efficiency: N/A
Efficacy: 88.2 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

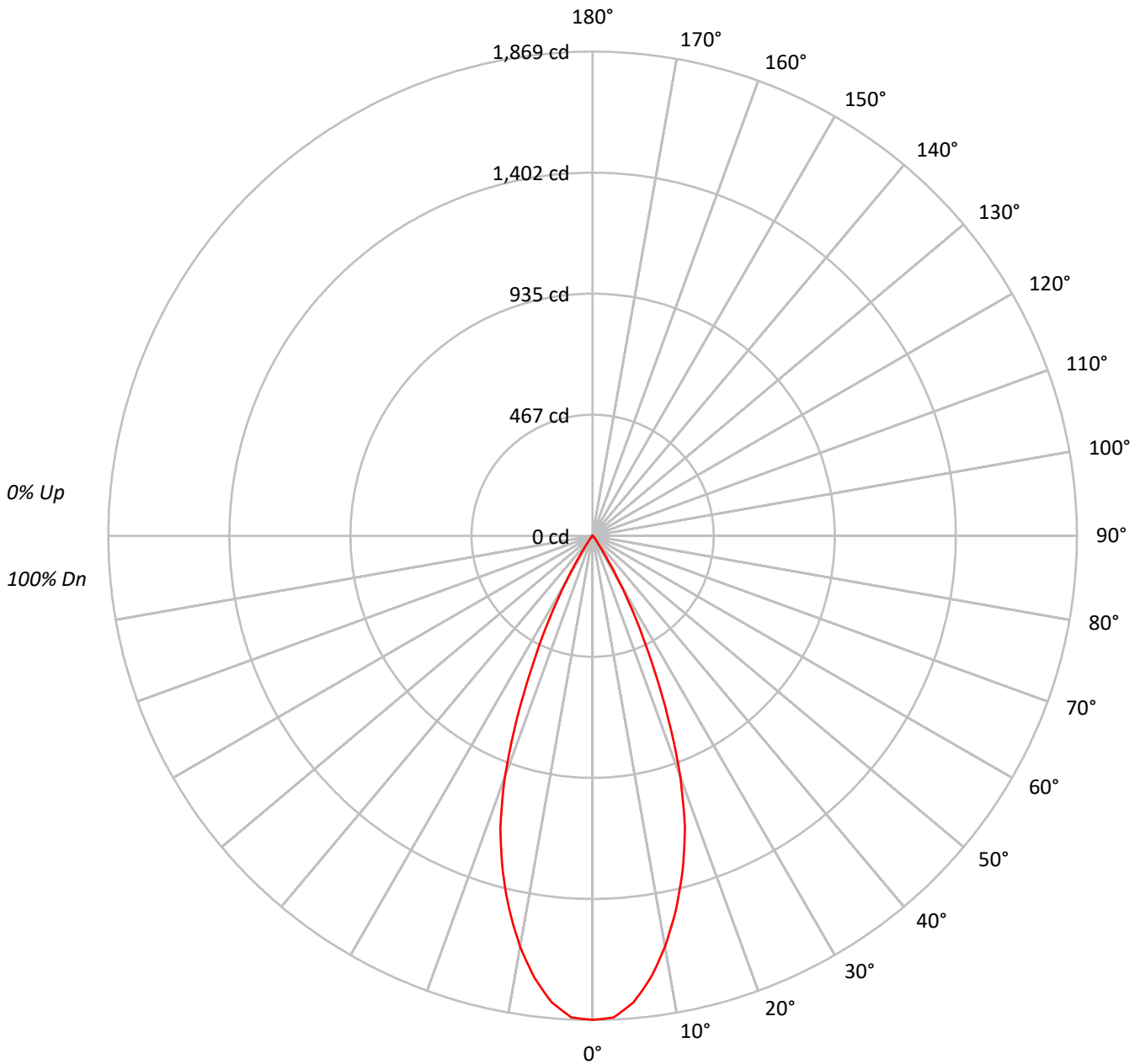
Input Watts (W): 9.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	87	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°	230508
5°	223861
10°	201688
15°	171126
20°	129792
25°	73383
30°	29425
35°	5737
40°	1594
45°	680
50°	422
55°	366
60°	271
65°	321
70°	216
75°	286
80°	426
85°	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 680 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.2	20.0
10°-20°	367.2	44.3
20°-30°	250.4	30.2
30°-40°	38.8	4.7
40°-50°	3.5	0.4
50°-60°	1.6	0.2
60°-70°	0.9	0.1
70°-80°	0.6	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°	783.8	94.5
0°-40°	822.6	99.2
0°-60°	827.7	99.8
0°-90°	829.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	829.3	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	1869	
5°	1808	166
15°	1340	367
25°	539	250
35°	38	39
45°	4	3
55°	2	2
65°	1	1
75°	1	1
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	1868.8
2.5°	1861.6
5°	1808.0
7.5°	1720.8
10°	1610.3
12.5°	1482.1
15°	1340.1
17.5°	1184.4
20°	988.8
22.5°	760.7
25°	539.2
27.5°	359.1
30°	206.6
32.5°	95.6
35°	38.1
37.5°	19.3
40°	9.9
42.5°	5.5
45°	3.9
47.5°	2.8
50°	2.2
52.5°	2.2
55°	1.7
57.5°	1.7
60°	1.1
62.5°	1.1
65°	1.1
67.5°	0.6
70°	0.6
72.5°	0.6
75°	0.6
77.5°	0.6
80°	0.6
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)